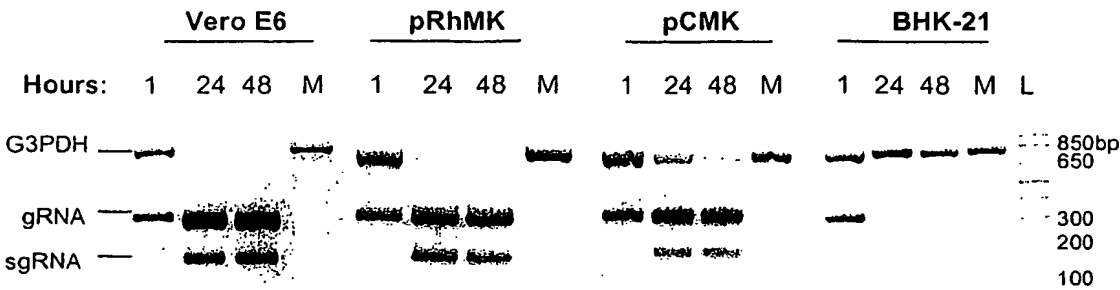


FIG. 1

A.



B.

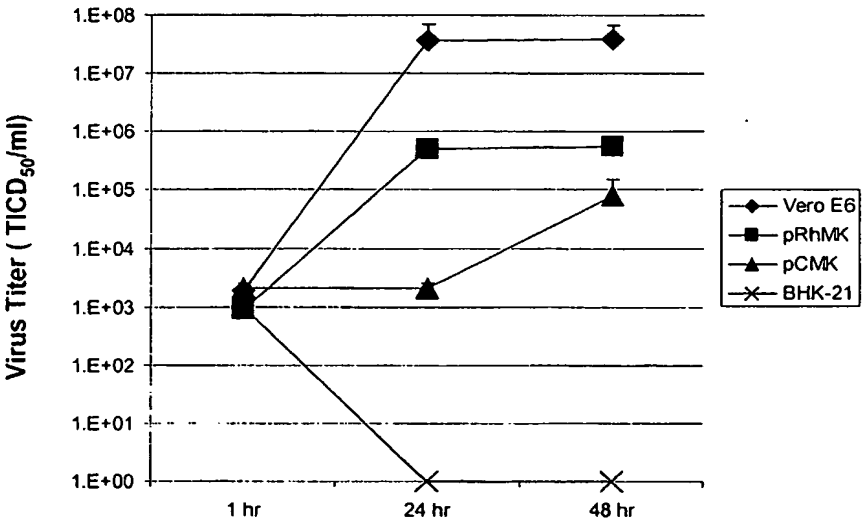


FIG. 2.

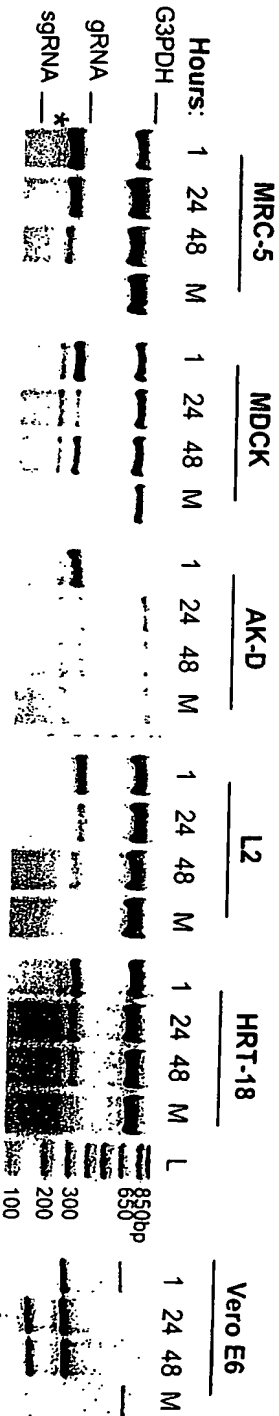
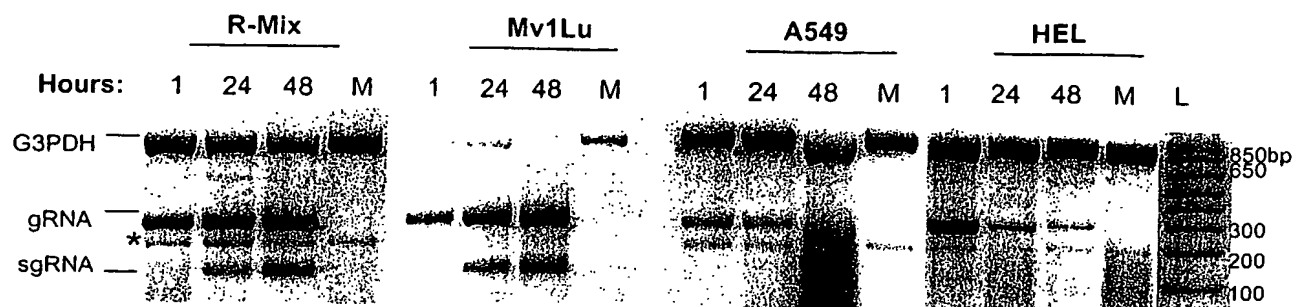


FIG. 3.

A.



B.

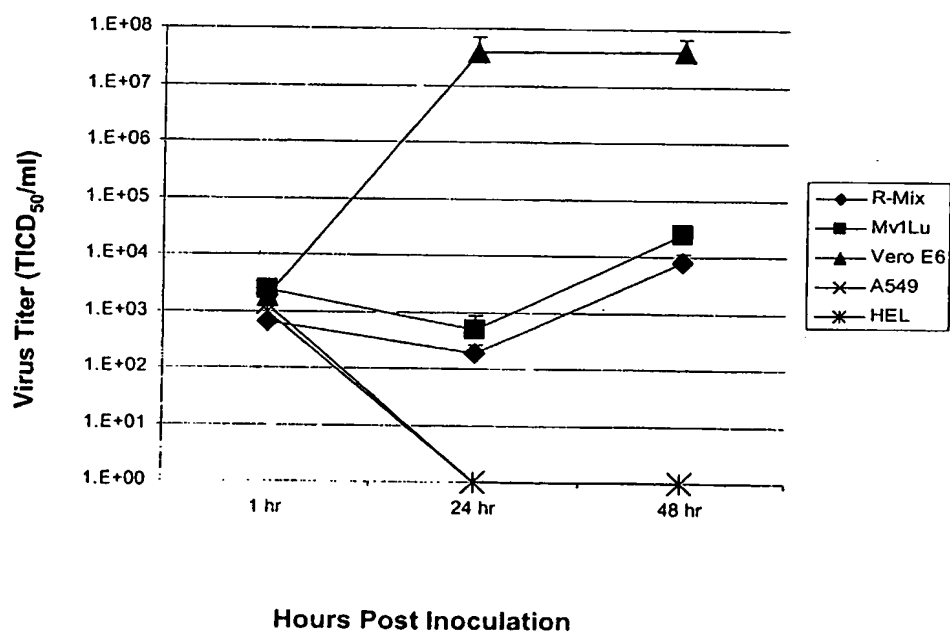
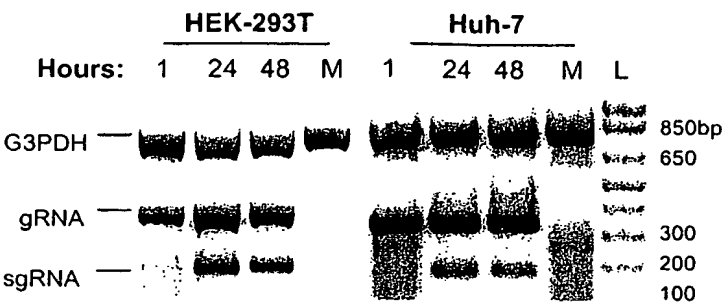


FIG. 4.

A.



B.

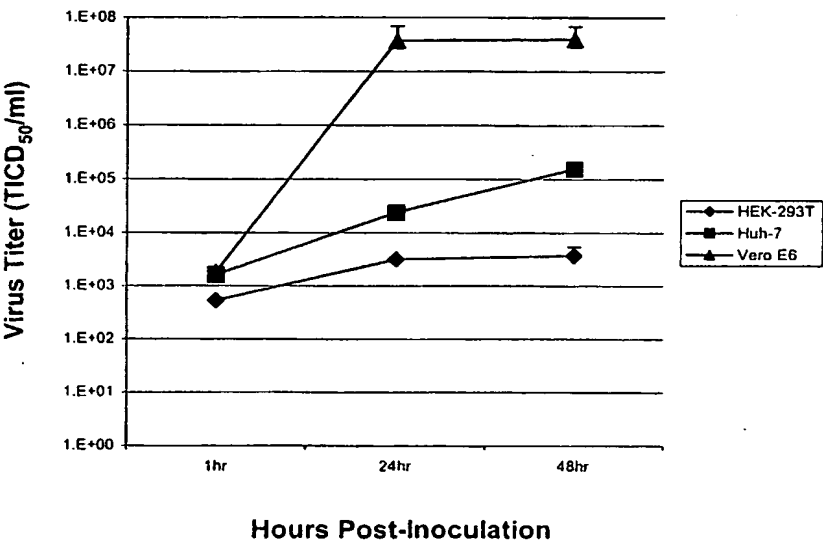
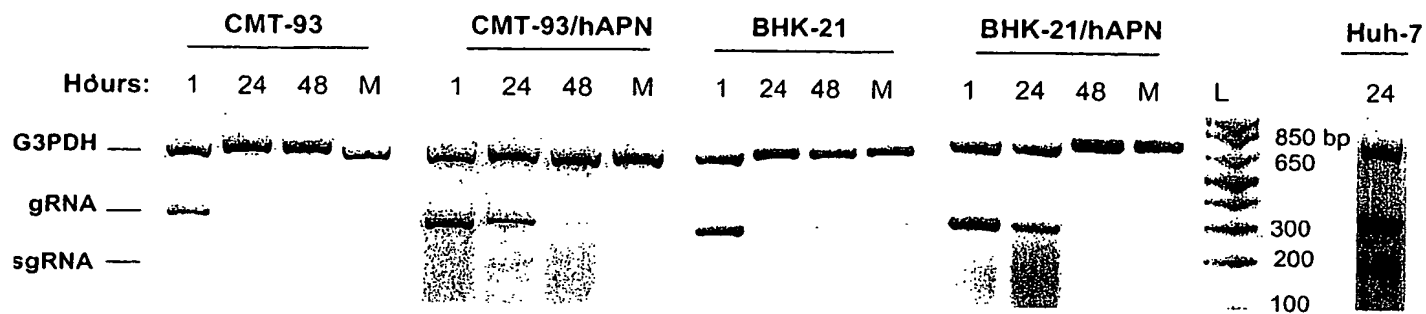


FIG. 5.

A.



B.

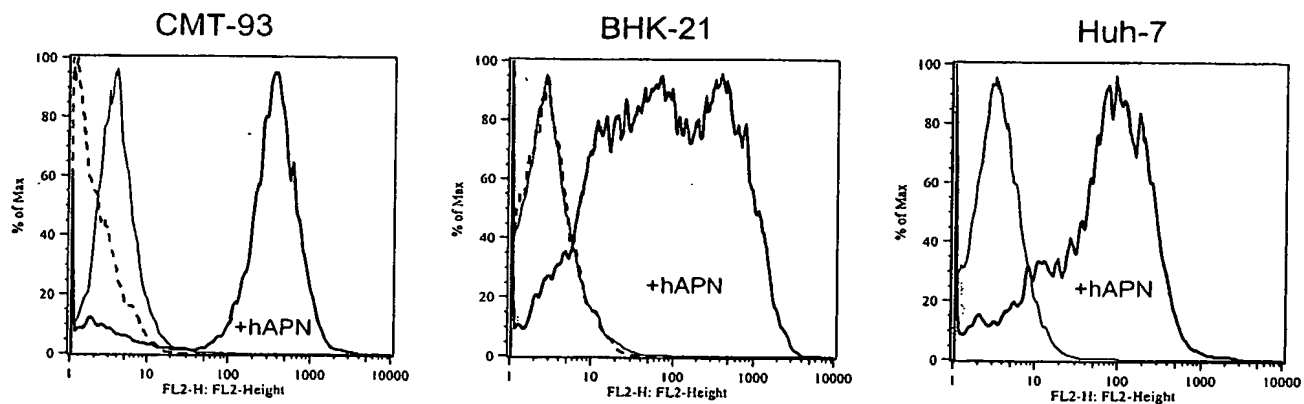


FIG. 6.

FIGURE 7A

```

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421 ctagttaggc tggaaaaagg cgtactgccc cagcttgaac agccctatgt gttcattaaa
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FIGURE 7B

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FIGURE 7C

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7381 agctatgttc atatcatgga tgggtgcacc tcttcgactt gcatgatgtg ctataagcgc
7441 aatcgtgcca caccggttga gtgtacaact attgttaatg gcatgaagag atctttctat
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10801 cagaatggta tgaatggctg tactatcctt ggtagcacta ttttagaaga tgagtttaca
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10921 gttaagggca ctcatcattg gatgctttta actttcttga catcactatt gattcttgtt
10981 caaagtacac agtggtcact gtttttcttt gtttacgaga atgctttctt gccatttact

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FIGURE 7D

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11041 cttgggtatta tggcaattgc tgcattgtgct atgctgcttg ttaagcataa gcacgcattc
11101 ttgtgcttgt ttctgttacc ttctcttgca acagttgctt actttaatat ggtctacatg
11161 cctgctagct gggtagtgcg tatcatgaca tggcttgaat tggctgacac tagcttgtct
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14581 atgttgcttt tcaaaactgt aaacccggta attttaataa aaaacacttc ttctttgctc
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FIGURE 7E

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FIGURE 7F

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FIGURE 7G

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25621 caacgcatgt agaattatta tgagatgttg gctttgttgg aagtgcaaat ccaagaacc
25681 attactttat gatgccaaat actttgtttg ctggcacaca cataactatg actactgtat
25741 accatataac agtgtcacag atacaattgt cgttactgaa ggtgacggca tttcaacacc
25801 aaaactcaaa gaagactacc aaattgggtg ttattctgag gataggcact cagggtttaa
25861 agactatgtc gttgtacatg gctattttcac cgaagtttac taccagcttg agtctacaca

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FIGURE 7H

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25921 aattactaca gacactggta ttgaaaatgc tacattcttc atctttaaca agcttggttaa
25981 agaccaccg aatgtgcaaa tacacacaat cgacggctct tcaggagttg ctaatccagc
26041 aatggatcca atttatgatg agccgacgac gactactagc gtgcctttgt aagcacaaga
26101 aagtgagtac gaacttatgt actcattcgt ttcggaagaa acaggtagct taatagttaa
26161 tagcgtaact ctttttcttg ctttcgtggg attcttgcta gtcacactag ccattccttac
26221 tgcgcttcga ttgtgtgcgt actgctgcaa tattgttaac gtgagtttag taaaaccaac
26281 ggtttacgtc tactcgcgtg ttaaaaatct gaactcttct gaaggagttc ctgatcttct
26341 ggtctaaacg aactaactat tattattatt ctgtttggaa cttaacatt gcttatcatg
26401 gcagacaacg gtactattac cggtgaggag cttaacaacac tcctggaaca atggaaccta
26461 gtaataggtt tcctattcct agcctggatt atgttactac aatttgccca ttctaactcg
26521 aacagggttt tgtacataat aaagcttggt ttctctggc tcttggtggc agtaacactt
26581 gcttggtttg tgcttgctgc tgtctacaga attaattggg tgactggcgg gattgcgatt
26641 gcaatggctt gtattgtagg cttgatgtgg cttagctact tcggtgcttc cttcaggctg
26701 tttgctcgta ccgctcaat ccgctcaat ccaacattct tctcaatgtg
26761 cctctccggg ggacaattgt gacacacccg ccatggaaa gtgaacttgt cattggtgct
26821 gtgatcattc gtggtcactt gcgaatggcc ggacaccccc tagggcgctg tgacattag
26881 gacctgccaa aagagatcac tgtggctaca tcacgaacgc ttcttatta caaattagga
26941 gcgtcgcagc gtgtaggcac tgattcaggt ttgtctgcat acaaccgcta ccgtattgga
27001 aactataaat taaatacaga ccacgcgggt agcaacgaca atattgctt gctagtacag
27061 taagtgacaa cagatgtttc atcttggtga cttccagggt acaatagcag agatattgat
27121 tatcattatg aggactttca ggattgctat ttggaatctt gacgttataa taagttcaat
27181 agtgagacaa ttattttaagc ctctaactaa gaagaattat tccggagttag atgatgaaga
27241 acctatggag ttgattatc cataaaacga acatgaaaat tattctcttc ctgacattga
27301 ttgtattttac atcttgcgag ctatatcact atcaggagtg tgttagagtg acgactgtac
27361 tactaaaaga accttgccca tcaggaacat acgagggcaa ttcaccattt caccctcttg
27421 ctgacaataa atttgcaacta acttgcaacta gcacacactt tgcttttgct tgtgctgacg
27481 gtactcgaca tacctatcag ctgcgtgcaa gatcagtttc accaaaactt ttcacagac
27541 aagaggaggt tcaacaagag ctctactcgc cactttttct cattgttgct gctctagat
27601 ttttaatact ttgcttcacc attaagagaa agacagaatg aatgagctca ctttaattga
27661 cttctatttg tgctttttag cctttctgct attccttggt ttaataatgc ttattatatt
27721 ttgggttttc ctcgaaatcc aggatctaga agaaccctgt accaaagtct aaacgaacat
27781 gaaacttctc attgttttga cttgtatttc tctatgcagt tgcatatgca ctgtagtaca
27841 gcgctgtgca tctaataaac ctctatgct tgaagatcct tgtaaggtag aacactaggg
27901 gtaatactta tagcactgct tggcttttg ctctaggaaa gggtttacct tttcatagat
27961 ggcacactat ggttcaaaaca tgcacaccta atgttactat caactgtcaa gatccagctg
28021 ttggtgctgct tatagctagg tgttggtacc ttcattgaagg tcaccaaact gctgcattta
28081 gagcgtact tggtgtttta aataaacgaa caaattaaaa tgtctgataa tggaccccaa
28141 tcaaaccaac gtagtgcccc ccgcattaca tttggtggac ccacagattc aactgacaat
28201 aaccagaatg gaggacgcaa tggggcaagg ccaaacacgc gccgacccca aggtttaccc
28261 aataaactg cgtcttggtt cacagctctc actcagcatg gcaaggagga acttagattc
28321 cctcgaggcc agggcggtcc aatcaacacc aatagtggc cagatgacca aattggctac
28381 taccgaagag ctaccgcagc agttcgtggg ggtgacggca aaatgaaaga gctcagccc
28441 agatggtact tctattacct aggaactggc ccagaagctt cacttccta cggcgctaac
28501 aaagaaggca tcgtatgggt tgcaactgag ggagccttga atacacccaa agaccacatt
28561 ggcacccgca atcctaataa caatgctgcc accgtgctac aacttcctca aggaacaaca
28621 ttgccc aaaag gcttctacgc agagggaagc agaggcgga gtcaagcctc ttctcgctcc
28681 tcatcacgta gtcgcggtaa ttcaagaaat tcaactcctg gcagcagtag gggaaattct
28741 cctgctcgaa tggctagcgg aggtggtgaa actgccctcg cgctattgct gctagacaga
28801 ttgaaccagc ttgagagcaa agtttctggt aaaggccaac aacaacaagg ccaaactgtc
28861 actaagaaat ctgctgctga ggcctctaaa aagcctcgcc aaaaacgtac tgccacaaaa
28921 cagtacaacg tcaactcaagc atttgggaga cgtggtccag aacaaacca aggaattttc
28981 ggggaccaag acctaatacag acaaggaaact gattacaaac attggccgca aattgcacaa
29041 tttgctccaa gtgcctctgc attcttttga atgtcacgca ttggcatgga agtcacacct
29101 tcgggaacat ggctgactta tcatggagcc attaaattgg atgacaaaga tccacaattc
29161 aaagacaacg tcatactgct gaacaagcac attgacgcat acaaaacatt cccaccaaca
29221 gagcctaaaa aggacaaaaa gaaaaagact gatgaagctc agcctttgct ccagagacaa
29281 aagaagcagc ccactgtgac tcttcttctc gcggtgaca tggatgattt ctccagacaa
29341 cttcaaaatt ccatgagtgg agcttctgct gattcaactc aggcataaac actcatgatg
29401 accacacaag gcagatgggc tatgtaaacg ttttcgcaat tccggtttac atacatagtc
29461 tactcttggt cagaatgaat tctcgtaact aacagcaca agtaggttta gttacttta
29521 atctcacata gcaatcttta atcaatgtgt aacattaggg aggacttgaa agagccacca
29581 cattttcatc gaggccacgc ggagtacgat cgagggtaca gtgaataatg ctagggagag

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FIGURE 7I

29641 ctgcctatat ggaagagccc taatgtgtaa aattaatttt agtagtgcta tccccatgtg
29701 attttaatag cttcttagga gaatgac

FIGURE 8 A

1 atattagggtt ttacctacc caggaaaagc caaccaacct cgaatcttgc tagatctgtt
 61 ctctaaacga actttaaaat ctgtgtagct gtcgtcggc tgcagccta gtgcacctac
 121 gcagtataaa caataataaa ttctactgtc gttgacaaga aacgagtaac tctccctct
 181 tctgcagact gcttacgggt tctccgtgt tgcagtcgat catcagcata cctagggttc
 241 gtccgggtgt gaccgaaagg taagatggag agccitgttc ttggtgtcaa cgagaaaaca
 301 caggtccaac tcaatttgc tctcttcag gttagagacg tctagtgcg tggcttcggg
 361 gactctgttg aagaggccct atcggaggca cgtgaacacc tcaaaaatgg cacttgtggt
 421 ctatagagc tggaaaaagg cgtactgcc cagcttgaac agccctatgt gttcattaaa
 481 cgttctgat ccttaagcac caatcacggc cacaaggctg ttgagctggt tgcagaaatg
 541 gacggcattc agtacggctg tagcgggata aactggggag tactcgtgcc acatgtgggc
 601 gaaaccccaa ttgcataccg caatgttctt ctctgaaga acggaataa gggagccggt
 661 ggtcatagct atggcatcga tctaaagtct tatgacttag gtgacgagct tggcactgat
 721 cccattgaag atfatgaaca aaactggaac actaagcatg gcagtgggtc actccgtgaa
 781 ctactcgtg agctcaatgg aggtgcagtc actcgtatg tgcacaaca ttctgtggc
 841 ccagatgggt accctcttga ttgcatcaaa gatttctcg cagcgcggg caagtcaatg
 901 tgcactctt ccgaacaact tgaatcacg gactcgaaga gagggtgcta ctgctgccg
 961 gaccatgagc atgaattgc ctggttact gacgcctctg ataagagta cgagcaccag
 1021 acacccttcg aaattaagag tgcgaagaaa ttgacactt tcaaggggga atgccccaa
 1081 ttgtgttct ctcttaactc aaaagtcaaa gtcattcaac cagtgttga aaagaaaaag
 1141 actgagggtt tcatggggcg tatacgtct gtgtaccctg ttgcatctcc acaggagtgt
 1201 aacaatagc acttgtctac ctgatgaaa tgaatcatt gcgatgaagt ttcatggcag
 1261 acgtgcgact tctgaaagc cacttgtgaa cattgtggca ctgaaaatt agttattgaa
 1321 ggacctacta catgtgggta cctacctact aatgctgtag tgaatatgcc atgtcctgcc
 1381 tgcgaagacc cagagattgg acctgagcat agtgttcgag attatcaca ccaactcaac
 1441 attgaaactc gactccgcaa gggaggtagg actagatgt ttggaggctg tgttttgcc
 1501 tatgttggct gctataataa gcgtgcctac tgggttcctc gtgtagtgc tgatattggc
 1561 tcaggccata ctggcattac tggtgacaat gtggagacct tgaatgagga tctccttgag
 1621 atactgagtc gtaacgtgt taacattaac attgttggcg attttcatt gaatgaagag
 1681 gtgccatca ttitggcacc ttctctgtc tctacaagt ccttattga cactataaag
 1741 agtcttgat acaagtctt caaaaccatt gttgagtcct gcggtacta taaagtacc
 1801 aagggaagc ccgtaaaagg tcttgggaac attggacaac agagatcagt tttaacacca
 1861 ctgtgtggtt ttcctcaca ggctgctggt ttatcagat caattttgc gcgcacact
 1921 gatgcagcaa accactcaat tctgatttgc caaagagcag ctgtcaccat actgatggt
 1981 atttctgaac agtcattacg tctgtcgcac gccatgggtt atacttcaga cctgtcacc
 2041 aacagtgtca ttattatggc atatgtaact ggtggtcttg tacaacagac ttctcagtgg
 2101 ttgtctaate ttitgggcac tactgttgaa aaactcaggc ctatcttga atggattgag
 2161 gcgaaactta gtgcaggagt tgaattctc aaggatgctt gggagattct caaatttctc
 2221 attacagggt ttittgacat cgtcaagggt caaatcagg ttgcttcaga taacatcaag
 2281 gattgtgtaa aatgcttcat tgatgttgt aacaaggcac tcgaaatgt cattgatcaa
 2341 gtcactatcg ctggcgcaaa gttcgatca ctcaacttag gtgaagtctt catgctcaa
 2401 agcaagggac ttaccgtca gttatatact ggcaaggagc agctgcaact actcatgcct
 2461 ctaaggcac caaagaagt aaccttctt gaagggtgat cacatgacac agtacttacc
 2521 tctgaggagg ttgttctcaa gaacgggtgaa ctggaagcac tgcagacgcc cgttgatagc
 2581 ttcaaaaatg gagctatcgt tggcacacca gtctgtgtaa atggcctcat gctcttagag
 2641 attagggaca aagaacaata ctgcgcattg tctcctggtt tactggctac aaacaatgtc
 2701 ttctgcttaa aagggggtgc accaattaaa ggtgtaacct ttggagaaga tactgtttg
 2761 gaagtcaag gttacaagaa tgtgagaac acatttgagc ttgatgaacg tttgacaaa
 2821 gtgttaaatg aaaagtgtc tgtctacact gttgaatccg gtaccgaagt tactgagtt
 2881 gcatgtgtg tagcagaggc tttgtgaag actttacaac cagtttctga tctccttacc
 2941 aacatgggta ttgacttga tgaatggagt gtagctacat tctacttatt tgatgatgt
 3001 ggtgaagaaa acttttcatc acgtatgtat ttttctt accctccaga tgaggaagaa

FIGURE 8 B

3061 gaggacgatg cagagtgtga ggaagaagaa attgatgaaa cctgtgaaca tgagtacggt
 3121 acagaggatg attatcaagg tctccctctg gaatttgggt cctcagctga aacagttcga
 3181 gttgagggaag aagaagagga agactggctg gatgatacta ctgagcaatc agagattgag
 3241 ccagaaccag aacctacacc tgaagaacca gttaatcagt ttacttggtta tttaaaactt
 3301 actgacaatg ttgccattaa atgtgttgac atcgtttaagg aggcacaaaag tgctaactct
 3361 atgggtgatg taaatgtctg taacatacac ctgaaacatg gtgggtgggtg agcagggtgca
 3421 ctcaacaagg caaccaatgg tgccatgcaa aaggagagtg atgattacat taagctaaat
 3481 ggccctctta cagtaggagg gtcttgtttg ctttctggac ataactttgc taagaagtgt
 3541 ctgcatgttg ttggacctaa cctaaatgca ggtgaggaca tccagcttct taaggcagca
 3601 tatgaaaatt tcaattcaca ggacatctta ctgacccat tgtgtcagc aggcataltt
 3661 ggtgctaaac cacttcagtc ttacaagtg tgcgtgcaga cggttcgtac acaggtttat
 3721 attgcagtca atgacaaagc tctttatgag caggttgtca tggattatct tgataacctg
 3781 aagcctagag tggagacacc taaacaagag gagccacca acacagaaga ttccaaaact
 3841 gaggagaaat ctgtctgaca gaagcctgtc gatgtgaagc caaaaattaa ggccctgcat
 3901 gatgagggtta ccacaacact ggaagaaact aagtttctta ccaataagtt actctgttt
 3961 gctgataca atggttaagct ttaccatgat tctcagaaca tgccttagagg tgaagatatg
 4021 tctttccttg agaaggatgc acctacatg gtaggtgatg ttactactag tgggtatac
 4081 acttgtgttg taataccctc caaaaaggct ggtggcacta ctgagatgct ctcaagagct
 4141 tgaagaaaag tgccagtga tgagtatata accacgtacc ctggacaagg atgtgtggt
 4201 tatacacttg aggaagctaa gactgctctt aagaaatgca aatctgcatt ttatgtacta
 4261 ccttcagaag cactaatgc taagggaagag attctaggaa ctgtatcctg gaatttgaga
 4321 gaaatgcttg ctcatgtga agagacaaga aaattaatgc ctatgtcat ggatgttaga
 4381 gccataatgg caaccatcca acgtaagtat aaaggaatta aaattcaaga gggcatcgtt
 4441 gactatggtg tccgattctt cttttact agtaaagagc ctgtagcttc tattattacg
 4501 aagctgaact ctctaaatga gccgctgtc acaatgcaa ttggttatgt gacacatggt
 4561 ttaactcttg aagaggctgc gcgctgatg cgttctcta aagctcctgc cgtagtgtca
 4621 gtatcatcac cagatgctgt tactacatat aatggatacc tcacttcgtc atcaaagaca
 4681 tctgaggagc actttttaga aacagtttct ttggctggct cttacagaga ttggtcctat
 4741 tcaggacagc gtacagagtt aggtgttgaa ttcttaagc gtggtgacaa aattgtgtac
 4801 cacactctgg agagccccgt cgagtttcat ctgacgggtg aggttcttc acttgacaaa
 4861 cttaaagatc tcttatccct gcgggagggt aagactataa aagtgttcac aactgtggac
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 4981 ccaacatact tggatgggtc tgatgttaca aaaattaaac ctcatgtaaa tcatgagggt
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 5101 catactcttg atgagagttt tcttggtagg tacatgtctg ctttaacca cacaagaaa
 5161 tggaaatttc ctcaagttgg tggtttaact tcaattaaat gggctgataa caattgttat
 5221 ttgtctatg ttttattagc acttcaacag cttgaagtca aattcaatgc accagcatt
 5281 caagaggctt attatagagc ccgtgctggt gatgctgcta acttttgtgc actcatactc
 5341 gcttacagta ataaaactgt tggcgagctt ggtgatgtca gagaactat gacctatct
 5401 ctacagcatg ctaatttga atctgcaaag cgagttctta atgtggtgtg taaacattgt
 5461 ggtcagaaaa ctactacctt aacgggtgta gaagctgta tgtatattgg tactctatct
 5521 tatgataatc ttaagacagg tgtttccatt ccatgtgtgt gtggctgta tgcacacaa
 5581 tatctaglac aacaagagtc ttctttgtt atgatgtctg caccacctgc tgagtataaa
 5641 ttacagcaag gtacattctt atgtcggaat gactacactg gtaactatca gttgtgtcat
 5701 tacactcata taactgctaa ggagaccctc tatcgtattg acggagctca cttacaaaag
 5761 atgtcagagt acaaaggacc agtgactgat gttttctaca aggaacatc ttactacta
 5821 accatcaagc ctgtgtcgt taaactcgat ggagttactt acacagagat tgaacaaaa
 5881 ttggatgggt attataaaaa ggataatgct tactatacag agcagcctat agaccttga
 5941 ccaactcaac cattacaaaa tgcgagtttt gataatttca aaticacatg ttctaacaca
 6001 aaattgtctg atgattttaa tcaaatgaca ggcctcaca agccagcttc acgagagcta
 6061 tctgtcacat tcttccaga cttgaatggc gatgtagtgg ctattgacta tagacactat
 6121 tcagcgaggt tcaagaaagg tgctaaatta ctgcataagc caattgttg gcacattaac

FIGURE 8 C

6181 caggctacaa ccaagacaac gttcaacca aacacttggg gttacgttg tctttggagt
 6241 acaaagccag tagatacttc aaatlcattt gaagtcttg cagtagaaga cacacaagga
 6301 atggacaatc ttgcttga aagtaacaa cccacctcag aagaagtagt ggaaatcct
 6361 accatacaga aggaagtcag agagtgtgac gtgaaaacta ccgaagtgt aggcaatgtc
 6421 atacttaaac catcagatga aggtgtttaa gtaacacaag agttaggta tgaggatctt
 6481 atggctgctt atgtggaaaa cacaagcatt accattaaga aacctaatga gctttacta
 6541 gccttaggtt taaaacaat tgccactcat ggtattgtg caattaatag tttccitgg
 6601 agtaaaattt tggcttatt caaacattc ttaggacaag cagcaattac aacatcaat
 6661 tgcgtaaga gattagcaca acgtgtgtt aacaattata gccttattg gtttacta
 6721 ttgttcaat tgtgtacttt tactaaaagt accaattcta gaattagagc ttactacct
 6781 acaactattg ctaaaaatag tttaagagt gttgctaaat tatgtttgga tgcggcatt
 6841 aattatgta agtcaccaa attttctaa ttgtcaca tcgctatgt gctattgtg
 6901 ttaagtattt gcttaggttc tctaactgt gtaactgtg ctttgggtg actcttatc
 6961 aatttgggt ctccttcta ttgtaatggc gttagagaat tttatctaa ttcgtctaac
 7021 gttactacta tggatttctg tgaaggttct tttccttga gcatttgtt aagtggatta
 7081 gactccctg attctatcc agctctgaa accattcagg tgacgattc atcgtacaag
 7141 ctgacttga caattttagg tctggccgct gagtgggtt tggcatatat gttgttaca
 7201 aaattcttt atttattagg tcttcagct ataatgcagg tttctttgg ctatttgc
 7261 agtcatttca tcagcaattc ttggctcatg tggttatca ttagtattg acaatggca
 7321 cccgttctg caatggtag gatgtacac tctttgctt ctttctacta catatggaag
 7381 agctatgtc atatcatgga tggttgcacc tcttcgactt gcatgatgt ctataagcgc
 7441 aatcgtgcca cagcggtga gtttacaact attgttaag gcatgaagag atcttctat
 7501 gtctatgcaa atggaggccg tggcttctgc aagactcaca attggaattg tctcaattgt
 7561 gacacattt gcaactgtg tacattcatt agtgatgaag ttgctgtga ttgtcactc
 7621 cagtttaaaa gaccaatcaa cctactgac cagtcactg atattgtga tagtgtgtc
 7681 gtgaaaaatg gcgcttca ccttacttt gacaaggctg gtcaaaagac ctatgagaga
 7741 catcgctct cccatttct caatttagac aatttgagag ctacaacac taaaggttca
 7801 ctgcctatta atgtcatagt tttgatggc aagtcctaa gcgacgagtc tgccttcaag
 7861 tctgcttctg tgaactacag tcagctgat tgcacacta tctgtgtc tgaccaagct
 7921 ctgtatcag acgttgaga tagtactgaa gttccgtta agatgttga tgcctatgtc
 7981 gacaccttt cagcaactt tagtgtct atggaaaaa ttaaggcact tttgttaca
 8041 gtcacagcg agttagcaa ggtgttagct tttagtggt tctttctac attcgttca
 8101 gctgcccag aaggtgtgt tgataccgat gttgacaca aggatgttt tgaatgtctc
 8161 aaattttac atcacttga ctagaagt acaggtgaca gtttaacaa ttcatgtc
 8221 acctataata aggttgaata catgacgcc agagatctt gcgcatgtat tgaactaat
 8281 gcaaggcata tcaatgcca agtagcaaaa agtcacaat ttcactcat ctggaatga
 8341 aaagactaca tgccttatc tgaacagct cgtaaacaaa tctgtagtgc tgccaagaag
 8401 aacaacatac ctttagact aacttgtct acaactagac aggttgtcaa tgcataact
 8461 actaaaatc cactcaaggg tggtaagatt gttagtact gttttaaact tatgcttaag
 8521 gccacattat tgtgcttct tctgcattg gttgttata tcttatgcc agtacataca
 8581 ttgtcaatcc atgatggtt cacaatgaa atcattggtt acaaagccat tcaggatgtt
 8641 gtcactcgt acatatttc tactgatgat tttttgcaa ataaacatgc tggttttgac
 8701 gcatggtta gccagcgtg tggttcatc aaaaatgaca aaagctgcc ttagtagct
 8761 gctatcatta caagagatg tggttcata gtgcctggct taccgggtac tgtgtgaga
 8821 gcaatcaatg gtgacttct gcatttcta cctcgtgtt ttagtctgt tggcaacatt
 8881 tgcacacac ctccaaact cattagtat agtgatttg ctacctgc tgcgttctt
 8941 gctgctagt gtacaattt taaggatgct atgggcaaac ctgtgccata ttgtatgac
 9001 actaattgc tagagggtc tatttctat agtgagctc gtccagacac tcttatgtg
 9061 ctatggatg gtccatcat acagtctct aacattacc tggagggtc ttttagagta
 9121 gtaacaactt ttgatctga gtacttaga catggtatc gcgaaaggtc agaagtaggt
 9181 attgcttat ctaccagtgg tagatgggt ctaataatg agcattacag agctctatca
 9241 ggagtttct gttgttga tgcgatgaat ctcatagcta acatcttac tctcttctg

FIGURE 8 D

9301 caacctgtgg gtgctttaga tgtgtctgct tcagtagtgg ctgggtggtat tattgccata
 9361 ttgggtgactt gtgctgccta ctactttatg aaattcagac gtgtttttgg tgagtacaac
 9421 catgtttgtt ctgctaagtc acttttgtt ttgatgtctt tcactatact ctgtctggta
 9481 ccagcttaca gctttctgcc gggagtctac tcagcttttt acttgtactt gacattctat
 9541 ttaccaatg atgtttcatt ctgggtcac cttcaatggt ttgccatgtt ttctcctatt
 9601 gtgccttttt ggataacagc aatctatgta ttctgtattt ctctgaagca ctgccattgg
 9661 ttctttaaca actatcttag gaaaagagtc atgtttaatg gagttacatt tagtaccttc
 9721 gaggaggctg ctttgtgtac cttttgtc aacaaggaaa tgtacctaaa attgcgtagc
 9781 gagacactgt tgccacttac acagtataac aggtatcttg ctctatataa caagtacaag
 9841 tatttcagtg gagcctttag tactaccagc tatcgtgaag cagcttgctg ccacttagca
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 10501 gctgttactg acttagaagg taaattctat ggtccatttg ttgacagaca aactgcacag
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 10621 atcaatgggt ataggtgggt tcttaataga ttaccacta ctttgaatga ctttaacctt
 10681 gtggcaatga agtacaacta tgaaccttgg acacaagatc atgttgacat attgggacct
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 10801 cagaatggta tgaatggctg tactatcctt ggtagcacta ttttagaaga tgagttaca
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 10981 caaagtacac agtgggtact gttttctt gtttacgaga atgcttctt gccatttact
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 11101 ttgtgcttgt ttctgttacc ttctcttga acagttgctt actttaatat ggtctacatg
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 11401 ttagtattt ctgtaaccic taactattct ggtgtcgtta cgactatcat gtttttagct
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 11521 ttacagtga tcatgcttgt ttattgttc ttaggctatt gttgtgctg ctactttggc
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 11761 gctactgtac agtctaaaat gtctgacgta aagtgcacat ctgtggtact gctctcggtt
 11821 cttaacaac tttagagtaga gtcatcttct aaattgtggg cacaatgtgt acaactccac
 11881 aatgatattc ttcttgcaa agacacaact gaagctttcg agaagatggt ttctctttg
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 12241 gcaagatctg aggacaagag ggcaaaaagta actagtcta tgcaacaat gctcttact
 12301 atgcttagga agcttgataa ttagtcactt aacaacatta tcaacaatgc cgtgatggt
 12361 tgtgtccac tcaacatcat accattgact acagcagcca aactcatggt tgtgtccct

FIGURE 8 E

12421 gattatggta cctacaagaa cacttgtgat ggtaacacct ttacatatgc atctgcactc
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 12541 atggacaatt caccaaattt ggcttggcct cttattgta cagctctaag agccaactca
 12601 gctgttaaac tacagaataa tgaactgagt ccagtagcac tacgacagat gtcctgtgag
 12661 gctggtagca cacaacagc ttgtactgat gacaatgcac ttgcctacta taacaattcg
 12721 aaggaggagta ggtttgtgct ggcaactacta tcagaccacc aagatctcaa atgggctaga
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 12841 gtacagaca caccaaaagg gcctaaagt aaatacttgt acttcatcaa aggcctaaac
 12901 aacctaaata gaggtatggt gctgggcagt ttagctgcta cagtacgtct tcaggctgga
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 13021 cctgctaaag catataagga ttacctagca agtggaggac aaccaatcac caactgtgtg
 13081 aagatgttgt gtacacacac tggtagga caggcaatta ctgtaacacc agaagctaac
 13141 atggaccaag agtcccttgg tgggtcttca tgttgcctgt atttagatg ccacattgac
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 13441 caggcactag tactgatgct gtctacaggg ctttgatat ttacaacgaa aaagttgctg
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 13861 acttctaga gaactcgtac atcttaccg tatatgctaa cttaggtagc cgtgtacgcc
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 15481 taaatgcact tcttcaact gatgtaata agatagctga caagtatgtc cgcaatctac

FIGURE 8 F

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 15661 tigtctataa cagtaactat gcggctcaag gtttagtagc tagcattaag aactttaagg
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 18481 gtgatacact gaaaggattg tcagacagag tctgttctg ccttgggag catggcttg
 18541 agcttacatc aatgaagtac tttgcaaga ttggacctga aagaactgt tgcgtgtg
 18601 acaacgtgc aactgtctt tctactcat cagatactta tgcctgctg aatcattctg

FIGURE 8 G

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 18781 gttgtgatgc tatcatgact agatgttttag cagtccatga gtgctttgtt aagcgcgttg
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 20761 ctttagctgt accctacaac atgagagtta ttacttttg tgctggctct gataaaggag
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 21661 atttattct tccatttat tctaatgta cagggtttca tactattaat catacgtttg
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FIGURE 8 H

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 23701 aatatggtag cttttgcaca caactaaatc gtgcactctc aggtattgct gctgaacagg
 23761 atcgcaacac acgtgaagtg ttgctcaag tcaacaatat gtacaaaacc ccaactttga
 23821 aatattttg ttgttttaatt tttcacaaa ttttacctga ccttctaaag ccaactaaga
 23881 ggtcttttt ttgaggactt ctcttata aggtgacct cgctgatgct ggcttcatga
 23941 agcaatatgg cgaatgccta ggtgatatta atgctagaga tctcatttgt gcgcagaagt
 24001 tcaatggact tacagtgttg ccacctctgc tcatgatga tatgattgct gcctacactg
 24061 ctgctctagt tagtggta ctgacctctg gatggacatt tgggtctggc gctgctcttc
 24121 aaataacctt tgctatgcaa atggcatata ggttcaatgg cattggagtt acccaaaatg
 24181 ttctctatga gaacaaaaa caaatcgcca accaatttaa caaggcgatt agtcaaatc
 24241 aagaatcact tacaacaaca tcaactgcat tgggcaagct gcaagacgtt gtaaccaga
 24301 atgtcaagc attaaacaca ctgttaaac aacttagctc taattttgtt gcaatttcaa
 24361 gtgtgctaaa tgatattctt tgcgacttg ataaagtga ggcggaggta caaattgaca
 24421 ggttaattac aggcagactt caaagccttc aaacctatgt aacacaacaa ctaatcaggg
 24481 ctgctgaaat cagggtctt gctaattct ctgctactaa atgtctgag tgtgttctg
 24541 gacaatcaaa aagagttgac tttgttgaa agggctacca cttatgtcc ttcccacaag
 24601 cagccccgca tgggtgttc ttctacatg tcatgtatgt gccatccag gagaggaact
 24661 tcaccacagc gccagcaatt tgcataag gcaaagcata cttccctcgt gaaggtgttt
 24721 ttgtgtttaa tggcacttct tggtttata cacagaggaa cttctttct ccacaataa
 24781 ttactacaga caatacattt gtctcaggaa attgtgatgt cgttattggc atcataaca
 24841 acacagttaa tgaacctctg caacctgagc ttgactcatt caaagaagag ctggacaagt

FIGURE 8 I

24901 acttcaaaaa tcatatca cagatgttg atcttggcga catttcaggc attaacgctt
 24961 ctgtcgtcaa cattcaaaaa gaaattgacc gcctcaatga ggtcgtctaa aatttaaatg
 25021 aatcacatcat tgaccttcaa gaattgggaa aatatgagca atatattaaa tggccttggt
 25081 atgtttggct cggcttcatt gctggactaa ttgccatcgt catggttaca atcttgcctt
 25141 gttgcatgac tagttgttgc agttgcctca aggggtgcatg ctcttgtggt tcttgcgtca
 25201 agtttgatga ggaatgactct gagccagttc tcaagggtgt caaattacat tacacataaa
 25261 cgaacttatg gatttgttta tgagattttt tactcttaga tcaattactg cacagccagt
 25321 aaaaattgac aatgcttctc ctgcaagtac tgttatgct acagcaacga taccgctaca
 25381 agcctcactc ccttccggat ggcttgttat tggcgttgca ttcttgcgt ttttcagag
 25441 cgctacacaa ataattgcgc tcaataaaag atggcagcta gccctttata agggcttcca
 25501 gtccatttgc aatttactgc tgctatttgc taccatctat tcacatcttt tgcctgtcgc
 25561 tgcaggatg gaggcgcaat tttgtacct ctatgccttg atatatttc tacaatgcat
 25621 caacgcatgt agaattatta tgagatgttg gcttgggtg aagtgcacaa ccaagaaccc
 25681 attactttat gatgccaaat acttgtttg ctggcacaca cataactatg actactgtat
 25741 accatataac agtgcacag atacaattgt cgttactgaa ggtgacggca ttcaacacc
 25801 aaaactcaaa gaagactacc aaattgggtg ttattctgag gataggcact cagggtgtaa
 25861 agactatgtc gtgtacatg gctatttacc cgaagtac taccagcttg agtctacaca
 25921 aattactaca gacactggtt ttgaaaatgc tacattcttc atctttaaca agcttgttaa
 25981 agacccaccg aatgtgcaaa tacacacaat cgacggcctc tcaggagtgt ctaatccagc
 26041 aatggatcca atttatgat agccgacgac gactactagc gtgcctttgt aagcacaaga
 26101 aagtgtgtac gaacttatgt actcattcgt ttccgaagaa acagggtacgt taatagttaa
 26161 tagcgtactt cttttcttgc ctttctgtgt attcttgcta gtcacactag ccatccttac
 26221 tgcgcttca ttgtgtcgt actgctgcaa tattgttaac gtgagttag taaaaccaac
 26281 ggtttactgc tactcgcgt ttaaaaatct gaacttct gaaggagtgc ctgatcttct
 26341 ggtctaaacg aactaactat tattattatt ctgtttgaa ctttaacatt gcttatcatg
 26401 gcagacaacg gtactattac cgttgaggag cttaaacac tcttgaaca atggaacctta
 26461 gtaatagggt tctatttctt agcctggatt atgttactac aatttgccta ttctaactgg
 26521 aacaggtttt tgacataat aaagcttgtt ttccctggc tcttgtggcc agtaacatt
 26581 gcttgtttg tgcttgcgc tgctacaga attaatggg tgactggcgg gattgcgatt
 26641 gcaatggctt gtatttagg ctgtatgttg cttagctact tcttgcctt cttcaggctg
 26701 ttgtcgtga cccgctcaat tgggtcattc aaccagaaa caaacattct tctcaatgtg
 26761 ccttccggg ggacaattgt gaccagaccg ctcatggaaa gtgaactgt cattggtgct
 26821 gtgatcattc tgggtcatt gcgaatggc ggacactccc tagggcgctg tgacattaag
 26881 gacctgcaa aagagatcac tgtggtaca tcacgaacgc ttcttatta caaattagga
 26941 gcgtgcagc gtgtaggcac tgattcaggt ttgtctgat acaaccgcta ccgtattgga
 27001 aactataaat taaatacaga ccacgcccgt agcaacgaca atattgcttt gctagtacag
 27061 taagtacaa cagatgttct atcttgtga ctccagggt acaatagcag agatattgat
 27121 tatcattatg aggactttca ggattgctat ttggaatctt gacgttataa taagttaat
 27181 agtgagacaa ttatttaagc ctctaactaa gaagaattat tggagttag atgatgaaga
 27241 acctatggag ttgattatc cataaaacga acatgaaat tattcttctc ctgacattga
 27301 ttgtatttac atcttgcgag ctatatcact atcaggagtg tgttagaggt acgactgtac
 27361 tactaaaaga accttgccta tcaggaacat acgagggcaa ttacacattt caccctcttg
 27421 ctgacaataa atttgacta acttgacta gcacacatt tgccttgcgt tgtgctgacg
 27481 gtactcgaca tacctatcag ctgcgtgcaa gatcagttc accaaaactt ttcatcagac
 27541 aagaggaggt tcaacaagag ctctactcgc cacttttct cattgttgcgt gctctagtat
 27601 tttaataact ttgcttacc attaaagaa agacagaatg aatgagctca ctttaattga
 27661 ctctatttg tgccttttag ccttctgct attcctgtt ttaataatgc ttattatatt
 27721 ttggttttca ctgaaatcc aggatctaga agaacctgt accaaagtct aaacgaacat
 27781 gaaacttctc atgttttga ctgtatttc tctatgcagt tgcattatga ctgtagtaca
 27841 gcgtgtgca tctataaac ctcatgtgt tgaagatcct tgaaggtac aacactaggg
 27901 gtaatactta tagcatgct tggcttgc ctctaggaaa ggctttacct ttcatagat
 27961 ggcacactat ggltcaaca tgcacaccta atgttactat caactgtcaa gatccagctg

FIGURE 8 J

28021 gtgggtgcgct tatagctagg tgttggtacc ttcataagg tcacaaact gctgcattta
 28081 gagacgtact tgttgttta aataaacgaa caaaitaaaa tgtctgataa tggaccccaa
 28141 tcaaaccaac gtagtgcccc ccgcattaca ttgttggtgac ccacagattc aactgacaat
 28201 aaccagaatg gaggacgcaa tggggcaagg ccaaaacagc gccgacccca aggtttaccc
 28261 aataatactg cgtcttggtt cacagctctc actcagcatg gcaaggagga acttagattc
 28321 cctcgaggcc agggcggtcc aatcaacacc aatagtggtc cagatgacca aattggctac
 28381 taccgaagag ctacccgacg agttcgtggt ggtgacggca aaatgaaaga gctcagcccc
 28441 agatgggtact tctattacct aggaactggc ccagaagctt cacttccta cggcgctaac
 28501 aaagaaggca tcgtatgggt tgcaactgag ggagccttga atacaccaa agaccacatt
 28561 ggcacccgca atctaataa caatgctgcc accgtgctac aacttcctca aggaacaaca
 28621 ttgcaaaaag gcttctacgc agagggaagc agaggcgga gtcaagcctc ttctcgtccc
 28681 tcatcacgta gtcgcggtaa ttcaagaaat tcaactcctg gcagcagtag gggaaattct
 28741 cctgctcgaa tggctagcgg aggttggtgaa actgccctcg cgctattgct gctagacaga
 28801 ttgaaccagc ttgagagcaa agtttctggt aaaggccaac aacaacaagg ccaaactgtc
 28861 actaagaaat ctgctgctga ggcatctaaa aagcctcgcc aaaaacgtac tgccacaaaa
 28921 cagtacaacg tcaactaagc atttgggaga cgtgggtccag aacaaacca aggaaatttc
 28981 ggggaccaag acctaactcag acaagggaact gattacaaac attggccgca aattgcacaa
 29041 ttgtctcaa gtgcctctgc attctttgga atgtcacgca ttggcatgga agtcacacct
 29101 tcgggaacat ggctgactta tcatggagcc attaaattgg atgacaaaga tccacaattc
 29161 aaagacaacg tcatactgct gaacaagcac attgacgcat acaaacatt cccaccaaca
 29221 gagcctaaaa aggacaaaaa gaaaaagact gatgaagctc agccittgcc gcagagacaa
 29281 aagaagcagc ccactgtgac tcttcttctt gcggctgaca tggatgattt ctccagacaa
 29341 cttaaaaatt ccatgagtgg agcttctgct gattcaactc aggcataaac actcatgatg
 29401 accacacaag gcagatgggc tatgtaaacg ttttcgcaat tccgtttacg atacatagtc
 29461 tactcttggt cagaatgaat tctcgttaact aaacagcaca agtaggttta gttaacttta
 29521 atctcacata gcaatcttta atcaatgtgt aacattaggg aggacttgaa agagccacca
 29581 cattttcatc gagggcacgc ggagtacgat cgagggtaca gtgaataatg ctaggagagag
 29641 ctgcctatat ggaagagccc taatgtgtaa aatttaattt agtagtgcta tccccatgtg
 29701 attttaatag ctcttagga gaatgacaaa aaaaaaaaaa aaaaaaaaaa a

FIGURE 9A

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1 ctaccaggga aaagccaacc aacctcgatc tcttgtagat ctgttctcta aacgaacttt
61 aaaatctgtg tagctgtcgc tcggctgcat gcctagtgc cctacgcagt ataaacaata
121 ataaatttta ctgtcgttga caagaaacga gtaactcgtc cctcttctgc agactgctta
181 cggtttcgtc cgtgttgacg tcgatcatca gcatacctag gtttcgtccg ggtgtgaccg
241 aaaggtaaga tggagagcct tgttcttggg gtcaacgaga aaacacacgt ccaactcagt
301 ttgcctgtcc ttcagggttag agacgtgcta gtgcgtggct tcggggactc tgtggaagag
361 gccctatcgg aggcacgtga acacctcaaa aatggcactt gtgggtctagt agagctggaa
421 aaaggcgtac tgccccagct tgaacagccc tatgtgttca ttaaactgtc tgatgcctta
481 agcaccaatc acggccacaa ggtcgttgag ctgggtgcag aaatggacgg cattcagtac
541 ggtcgtagcg gtataacact gggagtactc gtgccacatg tgggcgaaac cccaattgca
601 taccgcaatg ttcttcttcg taagaacggt aataaggagg ccggtgggtca tagctatggc
661 atcgatctaa agtcttatga cttagggtgac gagcttggca ctgatcccat tgaagattat
721 gaacaaaact ggaacactaa gcatggcagt ggtgcactcc gtgaactcac tcgtgagctc
781 aatggagggtg cagtcactcg ctatgtcgac aacaatttct gtggcccaga tgggtacctc
841 cttgattgca tcaaagattt tctcgcacgc gcgggcaagt caatgtgcac tcttccgaa
901 caacttgatt acatcgagtc gaagagaggt gtctactgct gccgtgacca tgagcatgaa
961 attgcctggg tcaactgagcg ctctgataag agctacgagc accagacacc cttcgaaatt
1021 aagagtggca agaaatttga cactttcaaa ggggaatgcc caaagtttgt gtttctctt
1081 aactcaaaag tcaaagtcac tcaaccacgt gttgaaaaga aaaagactga ggggttcattg
1141 gggcgtatac gctctgtgta ccctgttgca tctccacagg agtgaacaa tatgcacttg
1201 tctaccttga tgaaatgtaa tcattgcatg gaagtttcat ggcagacgtg cgactttctg
1261 aaagccactt gtgaacattg tggcactgaa aatttagtta ttgaaggacc tactactagt
1321 ggggtacctac ctactaatgc tgtagtgaat atgccatgtc ctgctgttca agaccagag
1381 attggacctg agcatagtgt tgcagattat cacaaccact caaacattga aactcgactc
1441 cgcaaggagg gtaggactag atgttttgga ggctgtgtgt ttgcctatgt tggctgctat
1501 aataagcgtg cctactgggt tcctcgtgct agtgctgata ttggctcagg ccatactggc
1561 attactgggt acaatgtgga gaccttgaat gaggatctcc ttgagatac gaggctgaa
1621 cgtgttaaca ttaacattgt tggcgatttt attgacacta taaagagtct tgattacaag
1681 gcatctttct ctgcttctac aagtgccttt aactataaag ttaccaaggg aaagcccgt
1741 tctttcaaaa ccattgttga gtcctgcggg aactataaag caccactgtg tggttttccc
1801 aaaggtgctt ggaacattgg acaacagaga tcagttttta cacttgatgc agcaaaccac
1861 tcacaggctg ctgggtgtat agcagctgtc accatacttg atggtatttc tgaacagtca
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1981 ttacgtcctg tcgacgccat ggtttatact cagacttctc agtggttgtc taatcttttg
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2101 ggcactactt ttctcaagga tgcttgggag attctcaaat ttctcattac aggtgtttt
2161 ggagtgaat ttctcaagga tgcttgggag attctcaaat ttctcattac aggtgtttt
2221 gacatcgtca aggggtcaaat acaggttgct tcagataaca tcaaggattg tgtaaaatgc
2281 ttcatgtgat ttgttaacaa ggcactcgaa atgtgcattg atcaagtcac tatcgctggc
2341 gcaagttgc gatcactcaa cttagggtgaa gtcttcatcg ctcaaagcaa gggactttac
2401 cgtcagtgtg tacgtggcaa ggcagcagct caactactca tgcctcttaa ggcaccaaaa
2461 gaagtaacct ttcttgaagg tgattcacat gacacagtac ttacctctga ggaggttgtt
2521 ctcaagaacg gtgaactcga agcactcgag acgcccgttg atagcttcac aaatggagct
2581 atcggtggca caccagtctg tgtaaattggc ctcatgctct tagagattaa ggacaaagaa
2641 caatactgcg cattgtctcc tggttacttg gctacaaaaca atgtctttcg cttaaaaggg
2701 ggtgcaccaa ttaaagggtg aacctttgga gaagatactg tttgggaagt tcaaggttac
2761 aagaatgtga gaatcacatt tgagcttgat gaacgtgttg acaaagtgtc taatgaaaag
2821 tgctctgtct acactgttga atccggtacc gaagttactg agtttgcatt tgtttagca
2881 gaggctgttg tgaagacttt tctgatctcc ttaccaacat ggtattgat
2941 cttgatgagt ggagtgtagc ttatttctac atgctggtga agaaaacttt
3001 tcatcacgta tgtattgttc cttttaccct ccagatgagg aagaagagga cgatgcagag
3061 tgtgaggaag aagaaattga tgaaacctgt gaacatgagt acggtacaga ggatgattat
3121 caaggctccc ctctggaatt tgggtgcctca gctgaaacag ttcgagttga ggaagaagaa
3181 gaggaagact ggctggatga tactactgag caatcagaga ttgagccaga accagaacct
3241 acacctgaag aaccagttaa tcagtttact ggttatttaa aacttactga caatgttggc
3301 attaaatgtg ttgacatcgt taaggaggca caaagtgtc atoctatggg gattgtaaat
3361 gctgctaaca tacacctgaa acatgggtgg ggtgtagcag gtgcactcaa caaggcaacc
3421 aatgggtgcca tgcaaaaagga gagtgatgat tacattaagc taaatggccc tcttacagta
3481 ggagggtctt gtttgctttc tggacataat cttgctaaga agtgtctgca tgttgttga
3541 cctaacctaa atgcaggtga ggacatccag cttcttaagg cagcatatga aaatttcaat
3601 tcacaggaca tcttacttgc accattgttg tcagcaggca tatttgggtc taaaccactt

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FIGURE 9B

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3661 cagtctttac aagtgtgctg gcagacggtt cgtacacagg tttatattgc agtcaatgac
3721 aaagctcttt atgagcaggt tgtcatggat tatcttgata acctgaagcc tagagtggaa
3781 gcacctaaac aagaggagcc accaaacaca gaagattcca aaactgagga gaaatctgtc
3841 gtacagaagc ctgtcgatgt gaagccaaaa attaaggcct gcattgatga gggtaccaca
3901 acactggaag aaactaagtt tcttaccaat aagtactctt tgtttgctga tatcaatggt
3961 aagctttacc atgattctca gaacatgctt agagggtgaag atatgtcttt ccttgagaag
4021 gatgcacctt acatggtagg tgatgttatc actagtgggtg atatcacttg tgttgtaata
4081 ccctccaaaa aggctgggtg cactactgag atgctctcaa gagctttgaa gaaagtgccca
4141 gttgatgagt atataaccac gtaccctgga caaggatgtg ctgggtatac acttgaggaa
4201 gctaagactg ctcttaagaa atgcaaactc gcattttatg tactaccttc agaagcacct
4261 aatgctaagg aagagattct aggaagaatt tcctggaatt tgagagaaat gcttgctcat
4321 gctgaagaga caagaaaatt aatgcctata tgcattggatg ttagagccat aatggcaacc
4381 atccaacgta agtataaagg aattaaaatt caagagggca tcgttgacta tgggtgccga
4441 ttcttctttt atactagtaa agagcctgta gcttctatta ttacgaagct gaactctcta
4501 aatgagccgc ttgtcacaat gccaaactgta tatgtgacac atgggtttta tcttgaagag
4561 gctgcgcgct gtatgcgttc tcttaaagct cctgcccgtag tgcagtatc atcaccagat
4621 gctgttacta catataatgg atacctcact tcgtcatcaa agacatctga ggagcacttt
4681 gtagaaacag tttctttggc tggctcttac agagattggg gacaaaattg tgtaccacac
4741 gagttagggt ttgaatttct taagcgtggg cgttgagggt ccttcacttg acaaactaaa
4801 cccgtcgagt ttcattctga cgttgagggt tttcacaactg tggacaacac
4861 tccctgcggg aggttaagac tataaaagtg ttacacactg tgggtccaac
4921 acacagcttg tggatatgtc tatgacatat ggacagcagt ttgggtccaac
4981 ggtgctgatg ttacaaaaat taaacctcat gttaaactatg agggtaagac
5041 ctacctagtg atgacacact acgtagttaa gctttcgagt actaccatac
5101 agttttcttg gtaggtacat gtctgtttta aaccacacaa agaaatggaa
5161 gttggtgggt taacttcaat taaatgggct gataacaatt gttatttgtc
5221 ttagcacttc aacagcttga agtcaaattc aatgcaccag cacttcaaga
5281 agagcccgtg ctgggtgatgc tgctaacttt tgtgcactca tactcgctta
5341 actgttggcg agcttgggtg tgtcagagaa actatgacct atcttctaca
5401 ttggaatctg caaagcgagt tcttaatgtg gtgtgtaaac atttgtgtca
5461 accttaacgg gtgtagaagc tgtgatgtat atgggtactc tatcttatga
5521 acaggtgttt ccattccatg tgtgtgtggt cgtgatgcta cacaatatct
5581 gagtcttctt ttgttatgat gtctgcacca cctgctgagt ataaattaca
5641 ttcttatgtg cgaatgagta cactggtaac tatcagtgtg gtcattacac
5701 gctaaggaga ccctctatcg tattgacgga gctcacctta caaagatgtc
5761 ggaccagtga ctgatgtttt ctacaaggaa acatcttaca ctacaacct
5821 tcgtataaac tcgatggagt tacttacaca gagattgaac caaaattgga
5881 aaaaaggata atgcttacta tacagagcag cctatagacc ttgtaccac
5941 ccaaagcgga gttttgataa tttcaaaactc acatgttcta acacaaaatt
6001 ttaaatcaaa tgacaggctt cacaagccca gcttcacgag agctatctgt
6061 ccagacttga atggcgatgt agtggctatt gactatagac actattcagc
6121 aaaggtgcta aattactgca taagccaatt tttgggcaca ttaaccaggc
6181 acaacgttca aaccaaacac ttgggtgttta cgttgccttt
6241 acttcaaatt catttgaagt tctggcagta gaagacacac
6301 tgtgaaagtc aacaaccac ctctgaagaa gtatgtgaaa
6361 gtcataagtg gtgacgtgaa aactaccgaa gttgtaggca
6421 gatgaagggt ttaaagtaac acaagagtta ggtcatgagg
6481 gaaaacacaa gcattaccat taagaaacct aatgagcttt
6541 acaattgcca ctcatggtat tgctgcaatt aatagtgttc
6601 tatgtcaaac cattcttagg acaagcagca attacaacat
6661 gcacaacgtg tgtttaacaa ttatatgcct tatgtgttta
6721 acttttacta aaagtaccaa ttctagaatt agagcttcac
6781 aatagtgtta agagtgttg taattatgt ttggatgccg
6841 cccaaatfff ctaaattgtt cacaatcgct atgtggctat
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6961 tcttattgta atggcggtag agaattgtat ccttaattcgt
7021 ttctgtgaag gttcttttcc ttgcagcatt tgtttaagtg
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7141 ttaggtctgg ccgctgagtg ggttttggca tatatgttgt
7201 ttaggtcttt cagctataat gcaggtgttc tttggctatt
7261 aattcttggc tcatgtgggt tatcattagt attgtacaaa
7321 gttaggatgt acatcttctt tgcttctttc tactacatat
ggaagagcta tgttcatatc

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FIGURE 9C

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7381 atggatgggt gcacctcttc gacttgcatt atgtgctata agcgcaatcg tgccacacgc
7441 gttgagtgtg caactattgt taatggcatg aagagatctt tctatgtcta tgcaaatgga
7501 ggccgtggct tctgcaagac tcacaattgg aattgtctca attgtgacac attttgcact
7561 ggtagtacat tcattagtga tgaagttgct cgtgatttgt cactccagtt taaaagacca
7621 atcaacccta ctgaccagtc atcgtatatt gttgatagtg ttgctgtgaa aaatggcgcg
7681 cttcacctct actttgacaa ggctgggtcaa aagacctatg agagacatcc tctctcccat
7741 tttgtcaatt tagacaattt gagagctaac aacactaaag gttcactgcc tattaatgtc
7801 atagtctttg atggcaagtc caaatgcgac gactctgctt ctaagtctgc ttctgtgtac
7861 tacagtcagc tgatgtgcca acctattctg ttgcttgacc aagctcttgt atcagacgtt
7921 ggagatagta ctgaagtttc cgttaagatg tttgatgctt atgtcgacac cttttcagca
7981 acttttagtg ttcttatgga aaaacttaag gcacttggtg ctacagctca cagcgagtta
8041 gcaaaggggt tagcttttaga tgggtgtcctt tctacattcg tgtcagctgc ccgacaagggt
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```

FIGURE 9D

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11341	gtctactatg	gtaatgcttt	agatcaagct	atttccatgt	gggccttagt	tatttctgta
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14701	ctatcagtag	ttatgactat	tatcgttata	acttgccaac	aatgtgtgat	atcagacaac
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FIGURE 9E

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18481	gattgtcaga	cagagtcgtg	ttcgtccttt	gggcgcagtg	ctttgagctt	acatcaatga

FIGURE 9F

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20341	tccctatgga	cagcacagt	aaaaattact	tcataacaga	tgcgcaacaa	ggttcacaa
20401	aatgtgtgtg	ttctgtgatt	gatcttttac	ttgatgactt	tgtcgagata	ataaagtcac
20461	aagatttgtc	agtgatttca	aaagtgggtca	aggttacaat	tgactatgct	gaaatttcat
20521	tcatgctttg	gtgtaaggat	ggacatgttg	aaaccttcta	cccaaaacta	ccgcaagtc
20581	aagcgtggca	accagggtgt	gcgagtgccta	acttgtacaa	gatgcaaga	atgcttcttg
20641	aaaagtgtga	ccttcagaat	tatggtgaaa	atgctgttat	acaaaagga	ataatgatga
20701	atgtcgcaaa	gtataactcaa	ctgtgtcaat	acttaaatac	acttacttta	gctgtacctt
20761	acaacatgag	agttattcac	tttgggtgctg	gctctgataa	aggagtgtga	ccaggtacag
20821	ctgtgctcag	acaatgggtg	ccaactggca	cactacttgt	cgattcagat	cttaattgat
20881	tcgtctccga	cgcagattct	actttaattg	gagactgtgc	aacagtacat	acggctaata
20941	aatgggacct	tattattagc	gatatgtatg	accttaggac	caaacatgtg	acaaaagaga
21001	atgactctaa	agaaggggtt	ttcacttatc	tgtgtggatt	tataaagcaa	aaactagccc
21061	tgggtgggtc	tatagctgta	aagataacag	agcattcttg	gaatgctgac	ctttacaagc
21121	ttatggggcca	tttctcatgg	tggacagctt	ttgttacaaa	tgtaaatgca	tcatcatcgg
21181	aagcattttt	aattggggct	aactatcttg	gcaagccgaa	ggaacaaatt	gatggctata
21241	ccatgcatgc	taactacatt	ttctggaggga	acacaaatcc	tatccagttg	tcttctctatt
21301	cactctttga	catgagcaaa	tttctcttta	aattaagagg	aactgctgta	atgtctctta
21361	aggagaatca	aatcaatgat	atgattttatt	ctcttctgga	aaaaggtagg	cttatcatta
21421	gagaaaacaa	cagagttgtg	gtttcaagt	atattcttgt	taacaactaa	acgaacatgt
21481	ttattttctt	attattttctt	actctcacta	gtggtagtga	ccttgaccgg	tgaccactt
21541	ttgatgatgt	tcaagctcct	aattacactc	aacatacttc	atctatgagg	gggggtttact
21601	atcctgatga	aatttttaga	tcagacactc	ttattttaac	tcaggattta	tcttctccat
21661	tttattctaa	tgttacaggg	tttcatacta	ttaatcatac	gtttgacaac	cctgtcatac
21721	cttttaagga	tggattttat	tttgtctcca	cagagaaatc	aaatgttgtc	cgtgggtggg
21781	tttttggttc	taccatgaac	aacaagtcac	agtcgggtgat	tattattaac	aattctacta
21841	atgttgttat	acgagcatgt	aactttgaat	tgtgtgacaa	ccctttcttt	gctgtttcta
21901	aacctatggg	tacacagaca	catactatga	tattcgataa	tgcatttaat	tgcatttctg
21961	agtaacatgc	tgatgccttt	tcgcttgatg	tttcagaaaa	gtcaggtaat	tttaaacact
22021	tacgagagtt	tgtgttttaa	aataaagatg	ggtttctcta	tggtttataag	ggctatcaac
22081	ctatagatgt	agttcgtgat	ctaccttctg	gttttaacac	tttgaaacct	atttttaagt
22141	tgctctcttg	tattaacatt	acaaatttta	gagccattct	tacagccttt	tcacctgctc
22201	aagacacttg	gggcacgtca	gctgcagcct	attttgttgg	ctatttaaaag	ccaactacat

FIGURE 9G

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22261 ttatgctcaa gtatgatgaa aatgggtacaa tcacagatgc tgttgattgt tctcaaaatc
22321 cacttgctga actcaaagtc tctgttaaga gctttgagat tgacaaagga atttaccaga
22381 cctctaattt caggggtgtt ccctcaggag atgttgtagag attccctaatt attacaaact
22441 tgtgtccttt tggagagggt tttaattgcta ctaaattccc ttctgtctat gcatgggaga
22501 gaaaaaaaaa ttctaattgt gttgctgatt actctgtgct ctacaactca acattttttt
22561 caacctttta gtgctatggc gtttctgcca ctaagttgaa tgatctttgc ttctccaatg
22621 tctatgcaga ttcttttcta gtcaaggagg atgatgtaag acaaatagcg ccaggacaaa
22681 ctgggtgttat tgctgattat aattataaat tgccagatga ttcatgggt tgtgtccttg
22741 cttggaatac taggaacatt gatgctactt caactggtaa ttataattat aaatataggt
22801 atcttagaca tggcaagctt aggccctttg agagagacat atctaattgt cctttctccc
22861 ctgatggcaa accttgcacc ccacctgtct ttaattgtta ttggccatta aatgattatg
22921 gtttttacac cactactggc attggctacc aaccttacag agttgtagta ctttcttttg
22981 aactttttaa tgcaccggcc acggtttgtg gaccaaattt atccactgac cttattaaga
23041 accagtgtgt caattttaat tttaattggac tcactggtac tgggtgtgta actccttctt
23101 caaagagatt tcaaccattt caacaatttg gccgtgatgt ttctgatttc actgattccg
23161 ttcgagatcc taaaacatct gaaattatag acatttcacc ttgctctttt ggggggtgta
23221 gtgtaattac acctggaaca aatgcttcat ctgaagttgc tgttctatat caagatgtta
23281 actgcactga tgtttctaca gcaattcatg cagatcaact cacaccagct tggcgcatat
23341 attctactgg aaacaatgta ttccagactc aagcaggctg tcttatagga gctgagcatg
23401 tcgacacttc ttatgagtg cacttcccta ttggagctgg catttgctg ctttaccata
23461 cagtttcttt attacgtagt actagccaaa aatctattgt ggcttatact atgtctttag
23521 gtgctgatag ttcaattgct tactctaata acaccattgc tatacctact aacttttcaa
23581 ttagcattac tacagaagta atgctgttt ctatggctaa aacctccgta gattgtaata
23641 gctacacttg cggagattct actgaattgt ctaatttgct tctccaatat ggtagctttt
23701 gcacacaact aaatcgtgca ctctcaggta ttgctgctga acaggatcgc aacacacgtg
23761 aagtgttcgc tcaagtcaaa caaatgtaca aaaccccaac ttgaaatat tttggtggtt
23821 ttaatttttc acaaatatta cctgaccctc taaagccaac taagaggtct tttattgagg
23881 acctgtctct taataagggt acactcgctg atgctggctt catgaagcaa tatggcgaat
23941 gcttaggtga tattaatgct agagatctca ttgtgctga gaagttcaat ggacttacag
24001 tgttgccacc tctgctcact gatgatatga ttgctgccta cactgctgct ctagtttagt
24061 gtactgccac tgctggatgg acatttggtg ctggcgctgc tcttcaata ccttttgcta
24121 tgcaaatggc atataggttc aatggcatgt gagttacca aaatgttctc tatgagaacc
24181 aaaaacaaat ttaacaagg cgccaaccaa cgttagtca aattcaagaa tcacttacia
24241 caacatcaac tgcattgggc aagctgcaag acgttggtta ccagaatgct aacagcattaa
24301 acacacttgt taaacaactt agctctaatt ttggtgcaat ttcaagtgtg ctaaatgata
24361 tcctttcgcg acttgataaa gtgcaggcgg aggtacaaat tgacagggtta attacaggca
24421 gacttcaaag ctttcaaacc tatgtaacac aacaactaat cagggctgct gaaatcaggg
24481 cttctgctaa tcttgctgct actaaaatgt ctgagtggtg tcttgacaa tcaaaaagag
24541 ttgacttttg tggaaagggc taccacctta tgccttccc acaagcagcc ccgcatggtg
24601 ttgtcttcct acatgtcacg tatgtgccat cccaggagag gaacttcacc acagcgccag
24661 caatttgtca tgaaggcaaa gcatacttcc ctctggaagg tgtttttgtg tttaatggca
24721 cttcttggtt tattacacag aggaacttct ttctccaca aataattact acagacaata
24781 catttgtctc aggaaattgt gatgtcgtaa ttggcatcat taacaacaca ttttatgatc
24841 ctctgcaacc tgagcttgac tcattcaaag aagagctgga caagtacttc aaaaatcata
24901 catcaccaga tgttgatctt ggcgacattt caggcattaa cgcttctgtc gtcaacattc
24961 aaaaagaaat tgaccgcctc aatgaggtcg ctaaaaattt aaatgaatca ttcattgacc
25021 ttcaagaatt gggaaaatat gagcaatata tttaatggcc ttggtatgtt tggctcggct
25081 tcattgctgg actaattgcc atcgctcatg ttacaatctt gctttgttgc atgactagtt
25141 gttgcagttg cctcaagggt gcatgctctt gtgggtcttg ctgcaagttt gatgaggatg
25201 actctgagcc agttctcaag ggtgtcaaat tacattacac ataaacgaac ttatggattt
25261 gtttatgaga ttttttactc ttggatcaat tactgcacag ccagtaaaaa ttgacaatgc
25321 ttctcctgca agtactgttc atgtacagc aacgataccg ctacaagcct cactcccttt
25381 cggatggctt gttattggcg ttgcatttct tgctgttttt cagagcgcta ccaaataat
25441 tgcgctcaat aaaagatggc agctagccct ttataagggc ttccagttca tttgcaattt
25501 actgctgcta tttgttacca tctattcaca tcttttgctt gtcgctgcag gtatggaggc
25561 gcaatttttg tacctctatg ctttgatata ttttctacaa tgcctcaacg catgtagaat
25621 tattatgaga tgttggtctt gttggaagtg caaatccaag aacccattac tttatgatgc
25681 caactacttt gtttgctggc acacacataa ctatgactac tgtataccat ataacagtgt
25741 cacagataca attgtcgtaa ctgaagggtg cggcatttca acacaaaac tcaaagaaga
25801 ctacaaaatt ggtggttatt ctgaggatag gcactcaggt gttaaagact atgtcgttgt
25861 acatggctat ttcaccgaag tttactacca gcttgagtct acacaaatta ctacagacac
25921 tggatttgaa aatgctacat tcttcatctt taacaagctt gttaaagacc caccgaatgt

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FIGURE 9H

25981	gcaaatacac	acaatcgacg	gctcttcagg	agttgcta	ccagcaatgg	atccaattta
26041	tgatgagccg	acgacgacta	ctagcgtgcc	tttgtaagca	caagaaagtg	agtacgaact
26101	tatgtactca	ttcgttttcgg	aagaaacagg	tacgttaata	gttaatagcg	tacttctttt
26161	tcttgctttc	gtgggtattct	tgctagtcac	actagccatc	cttactgcmc	ttcgattgtg
26221	tgcgactgc	tgcaatattg	ttaacgtgag	tttagtaaaa	ccaacggttt	acgtctactc
26281	gcgtgttaaa	aatctgaact	cttctgaagg	agttcctgat	cttctggtct	aaacgaacta
26341	actattatta	ttattctggt	tggaaacttta	acattgctta	tcattggcaga	caacggtact
26401	attaccggtg	aggagcttaa	acaactcctg	gaacaatgga	acctagtaat	aggtttcccta
26461	ttcctagcct	ggattatggt	actacaattt	gcctattcta	atcggaacag	gtttttgtac
26521	ataataaagc	ttgttttctt	ctggctcttg	tggccagtaa	cacttgcttg	ttttgtgctt
26581	gctgctgtct	acagaattaa	ttgggtgact	ggcgggattg	cgattgcaat	ggcttgattt
26641	gtaggcttga	tgtggcttag	ctacttcggt	gcttccttca	ggctggttgc	tcgtaccgcg
26701	tcaatgtggt	cattcaaccc	agaaacaaac	attcttctca	atgtgcctct	ccggggggaca
26761	attgtgacca	gaccgctcat	ggaaagtga	cttgctcattg	gtgctgtgat	cattcgtggt
26821	cacttgcgaa	tggccggaca	ctccctaggg	cgctgtgaca	ttaaggacct	gccaaaagag
26881	atcactgtgg	ctacatcacg	aacgctttct	tattacaaat	taggagcgct	gcagcgtgta
26941	ggcactgatt	cagggttttgc	tgcatacaac	cgctaccgta	ttggaaacta	taaatataat
27001	acagaccacg	ccggtagcaa	cgacaatatt	gctttgctag	tacagtaagt	gacaacagat
27061	gtttcatctt	gttgacttcc	agggttacaat	agcagagata	ttgattatca	ttatgaggac
27121	tttcaggatt	gctatttgga	atcttgacgt	tataataagt	tcaatagtga	gacaattatt
27181	taagcctcta	actaagaaga	attattcggg	gttagatgat	gaagaaccta	tggagttaga
27241	ttatccataa	aacgaacatg	aaaattattc	tcttcctgac	attgattgta	tttcatctt
27301	gagagctata	tcactatcag	gagtggtgta	gaggtacgac	tgtactacta	aaagaacctt
27361	gccatccagg	aacatacag	ggcaattcac	catttcaccc	tcttgctgac	aataaatttg
27421	cactaacttg	cactagcaca	cacttttgct	ttgcttgctg	tgacgggtact	cgacatctt
27481	atcagctgcg	tgcaagatca	gtttcaccaa	aacttttcat	cagacaagag	gaggttcaac
27541	aagagctcta	ctcgccactt	tttctcattg	ttgctgctct	agtattttta	atactttgct
27601	tcaccattaa	gagaaagaca	gaatgaatga	gctcacttta	attgacttct	atttggtgctt
27661	tttagccttt	ctgctattcc	ttgttttaat	aatgcttatt	atattttggg	tttctactga
27721	aatccaggat	ctagaagaac	cttgtacca	agtctaaacg	aacatgaac	ttctcattgt
27781	tttgacttgt	atttctctat	gcagttgcat	acgcactgta	gtacagcgct	gtgcatctaa
27841	taaacctcat	gtgcttgaag	atccttgtaa	ggtacaacac	taggggtaat	acttatagca
27901	ctgcttggt	ttgtgctcta	ggaaagggtt	taccttttca	tagatggcac	actatgggtc
27961	aaacatgcac	acctaattgt	actatcaact	gtcaagatcc	agctgggtgg	gcgcttatag
28021	ctaggtgttg	gtaccttcat	gaaggtcacc	aaactgctgc	atttagagac	gtacttggtg
28081	ttttaataaa	acgaacaaat	taaaatgtct	gataatggac	cccaatcaaa	ccaacgtagt
28141	gccccccgca	ttacatttgg	tggacccaca	gattcaactg	acaataacca	gaatggaggga
28201	cgcaatgggg	caaggccaaa	acagcgccga	ccccagggtt	tacccaataa	tactgcgtct
28261	tgggttcacag	ctctcactca	gcattggcaag	gaggaactta	gattccctcg	aggccagggg
28321	gttccaatca	acaccaatag	tgggtccagat	gaccaaattg	gctactaccg	aagagctacc
28381	cgacgagttc	gtgggtgggtga	cggaacaaatg	aaagagctca	gccccagatg	gtacttctat
28441	tacctaggaa	ctggcccaga	agcttcactt	ccctacggcg	ctaacaaga	aggcatcgta
28501	tgggttgcaa	ctgaggggagc	cttgaatata	cccaaagacc	acattggcac	ccgcaactct
28561	aataacaatg	ctgccaccgt	gctacaactt	cctcaaggaa	caacattgcc	aaaagggttc
28621	tacgcagagg	gaagcagagg	cggcagtcac	gcctcttctc	gctcctcatc	acgtagtgcg
28681	ggtaattcaa	gaaattcaac	tcttgccagc	agtaggggaa	atttctctgc	tcgaatgggt
28741	agcggaggtg	gtgaaactgc	ctcgcgcta	ttgctgctag	acagattgaa	ccagcttgag
28801	agcaaagttt	ctggtaaagg	ccaacaacaa	caaggccaaa	ctgtcactaa	gaaatctgct
28861	gctgagggat	ctaaaaagcc	tcgcaaaaaa	cgtactgcca	caaaacagta	caacgtcact
28921	caagcatttg	ggagacgtgg	tccagaacaa	acccaaggaa	atttcgggga	ccaagacctt
28981	atcagacaag	gaactgatta	caaacattgg	ccgcaaatg	cacaatttgc	tccaagtggc
29041	tctgcattct	ttggaatgct	acgcattggc	atgggaagtca	caccttcggg	aacatggctg
29101	acttatcatg	gagccattaa	attggatgac	aaagatccac	aattcaaaga	caacgtcata
29161	ctgctgaaca	agcacattga	cgcatacaaa	acattcccac	caacagagcc	taaaaaggac
29221	aaaaagaaaa	agactgatga	agctcagcct	ttgcccgcaga	gacaaaagaa	gcagcccact
29281	gtgactcttc	ttcctgcggc	tgacatggat	gatttctcca	gacaacttca	aaattccatg
29341	agtggagctt	ctgctgattc	aactcaggca	taaacactca	tgatggaccac	acaaggcaga
29401	tgggctatgt	aaacgttttc	gcaattccgt	ttacgatata	tagtctactc	ttgtgcagaa
29461	tgaattctcg	taactaaaca	gcacaagtag	gtttagttaa	ctttaatctc	acatagcaat
29521	ctttaatcaa	tgtgtaacat	tagggaggac	ttgaaagagc	caccacattt	tcacgaggc
29581	cacgcggagt	acgatcgagg	gtacagtga	taatgctagg	gagagctgcc	tatatggaag

FIGURE 9I

29641 agccctaag tgtaaaatta attttagtag tgctatcccc atgtgatttt aatagcttct
29701 taggagaatg acaaaaaaaaa aaaaaaaaaa aaaaaaa

FIGURE 10

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1  tctgtgtagc  tgtcgctcgg  ctgcatgcct  agtgcaccta  cgcagtataa  acaataataa
61  attttactgt  cgttgacaag  aaacgagtaa  ctcgtccctc  ttctgcagac  tgcttacggg
121  ttcgtccgtg  ttgcagtcga  tcatacagcat  acctagggtt  cgtccgggtg  tgaccgaaag
181  gtaagatgga  gagccttggt  cttggtgtca  acgagaaaaa  acacgtccaa  ctcagtttgc
241  ctgtccttca  ggtagagac  gtgctagtgc  gtggcttcgg  ggactctgtg  gaagaggccc
301  tatcgagggc  acgtgaacac  ctcaaaaatg  gcacttgtgg  tctagtagag  ctggaaaaag
361  gcgtactgcc  ccagcttgaa  cagccctatg  tgttcattaa  acgttctgat  gccttaagca
421  ccaatcacgg  ccacaaggtc  gttgagctgg  ttgcagaaat  ggacggcatt  cagtacggtc
481  gtagcgggat  aacactggga  gtactcgtgc  cacatgtggg  cgaaacccca  attgcatacc
541  gcaatgttct  tcttcgtaag  aacggtaata  agggagccgg  tggcatagc  tatggcatcg
601  atctaaagtc  ttatgactta  ggtgacgagc  ttggcactga  tcccattgaa  gattatgaac
661  aaaactggaa  cactaagcat  ggcagtgggt  cactccgtga  actcactcgt  gagctcaatg
721  gaggtgtagt  cactcgctat  gtcgacaaca  atttctgtgg  cccagatggg  taccctcttg
781  attgcatcaa  agattttcta  gcacgcgcgg  gcaagtcaat  gtgcactctt  tccgaacaac
841  ttgattacat  cgagtcgaag  agaggtgtct  actgctgccg  tgaccatgag  catgaaattg
901  cctggttcac  tgagcgctct  gataagagct  gcgagcacca  gacacccttc  gaaattaaga
961  gtgccaagaa  atttgacact  ttcaaagggg  aatgccccaa  gtttgtgttt  cctcttaact
1021  caaaagtcaa  agtcattcaa  ccacgtgttg  aaaagaaaaa  gactgagggg  ttcatggggc
1081  gtatacgctc  tgtgtaccct  gttgcatctc  cacaggagtg  taacaatatg  cacttgtcta
1141  ccttgatgaa  atgtaatcat  tgcgatgaag  tttcatggca  gacgtgcgac  tttctgaaag
1201  ccacttgtag  acattgtggc  actgaaaatt  tagttattga  aggacctact  acatgtgggt
1261  acctacctac  taatgctgta  gtgaaaatgc  catgtcctgc  ctgtcaagac  ccagagattg
1321  gacctgagca  tagtgttgca  gattatcaca  accactcaaa  cattgaaact  cgactccgca
1381  agggaggtag  gactagatgt  tttggaggct  gtgtgtttgc  ctatgttggc  tgctataata
1441  agcgtgccta  ctgggttcct  cgtgctagtg  ctgatattgg  ctcaggccat  actggcatta
1501  ctgggtgacaa  tgtggagacc  ttgaatgagg  atctccttga  gatactgagt  cgtgaacgtg
1561  ttaacattaa  cattgttggc  gattttcatt  tgaatgaaga  ggttgccatc  attttggcat
1621  ctttctctgc  ttctacaagt  gcctttattg  acactataaa  gagtcttgat  tacaagtctt
1681  tcaaaaccat  tgttgagtcc  tgcggg

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FIGURE 11A

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1 agtggttttat tagcacttca acagcttgaa gtcaaattca atgcaccagc acttcaagag
61 gcttattata gagcccggtc tgggtgatgt gctaactttt gtgcactcat actcgcttac
121 agtaataaaa ctggtggcga gcttgggtgat gtcagagaaa ctatgaccca tcttctacag
181 catgctaatt tggaaatctgc aaagcgagtt cttaatgtgg tgtgtaaaaca ttgtggtcag
241 aaaactacta ccttaacggg tgtagaagct gtgatgtata tgggtactct atcttatgat
301 aatcttaaga caggtgtttc cattccatgt gtgtgtggtc gtgatgtac acaatatcta
361 gtacaacaag agtcttcttt tgttatgatg tctgcaccac ctgctgagta taaattacag
421 caaggtacat tcttatgtgc gaatgagtag actggtaact atcagtgtgg tcattacact
481 catataactg ctaaggagac cctctatcgt attgacggag ctcaccttac aaagatgtca
541 gagtacaaag gaccagtgc tgatgttttc tacaaggaaa catcttacac tacaaccatc
601 aagcctgtgt cgtataaact cgatggagtt acttacacag agattgaacc aaaattggat
661 ggggtattata aaaaggataa tgcttactat acagagcagc ctatagacct tgtaccaact
721 caaccattac caaatgcgag ttttgataat ttcaaactca catgttctaa cacaaaattt
781 cctgatgatt taaatcaaat gacaggcttc acaaagccag cttcacgaga gctatctgtc
841 acattcttcc cagacttgaa tggcgatgta gtggctattg actatagaca ctattcagcg
901 agtttcaaga aaggtgctaa attactgcat aagccaattg tttggcacat taaccaggct
961 acaaccaaga caacgttcaa accaaacact tgggtgtttac gttgtctttg gagtacaaag
1021 ccagtagata cttcaaattc atttgaagtt ctggcagtag aagacacaca aggaatggac
1081 aatcttgctt gtgaaagtca acaaccaccc tctgaagaag tagtggaaaa tctaccata
1141 cagaaggaag tcatagagtg tgacgtgaaa actaccgaag ttgtaggcaa tgtcatactt
1201 aaaccatcag atgaaggtgt taaagtaaca caagagttag gtcatgagga tcttatggct
1261 gcttatgtgg aaaacacaag cattaccatt aagaaaccta atgagctttc actagcctta
1321 ggtttaaaaa caattgccac tcatggttat gctgcaatta atagtgttcc ttggagtaaa
1381 attttggtct atgtcaaacc attcttagga caagcagcaa ttacaacatc aaattgcgct
1441 aagagattag cacaacgtgt gtttaacaat tatatgcctt atgtgtttac attattgttc
1501 caattgtgta cttttactaa aagtaccaat tctagaatta gagcttcact acctacaact
1561 attgctaaaa atagtgttaa gagtgttgct aaattatgtt tggatgccgg cattaattat
1621 gtgaagtcac ccaaattttc taaattgttc acaatcgcta tgtggctatt gttgttaagt
1681 atttgcttag gttctctaatt ctgtgtaact gctgcttttg gtgtactctt atctaatttt
1741 ggtgctcctt cttattgtaa tggcggttaga gaattgtatc ttaattcgct taacgttact
1801 actatggatt tctgtgaagg ttcttttctt tgcagcattt gtttaagtgg attagactcc
1861 cttgattctt atccagctct tgaaccactt caggtgacga tttcatcgta caagctagac
1921 ttgacaattt taggtctggc cgctgagtggt gttttggcat atatgttgtt cacaanaattc
1981 ttttatttat taggtctttc agctataatg caggtgttct ttggctatct tgctagtcat
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2101 tctgcaatg ttaggatgta catcttcttt gcttctttct actacatatg gaagagctat
2161 gttcatatca tggatggttg accctcttcg acttgcatga tgtgctataa tgcgaactgt
2221 gccacacgag ttgagtgtac aactattgtt aatggcatga agagatcttt ctatgtctat
2281 gcaaattggag gccgtggctt ctgcaagact cacaattgga attgtctcaa ttgtgacaca
2341 ttttgactg gttagtacatt cattagtgtg gaagttgctc gtgatttgct actccagttt
2401 aaaagaccaa tcaaccctac tgaccagtca tegtatatgt ttgatagtgt tegtgtgaaa
2461 aatggcgcg ttcacctcta ctttgacaag gctgggtcaaa agacctatga gagacatccg
2521 ctctcccat ttgtcaattt agacaatttg agagctaaca acactaaagg ttcactgcct
2581 attaatgtca tagtttttga tggcaagtc gatgtgccaa cctattctgt tgcttgacca agctcttga
2641 tctgtgtact acagtcagct tgaagtttcc gtttaagatgt ttgatgctta tgtcgacacc
2701 tcagacgttg gagatagtac tgaagtttcc tcttatggaa aaacttaagg cacttgttgc tacagctcac
2761 ttttcagcaa cttttagtgt agcttttagat ggtgtccttt ctacattcgt gtcagctgcc
2821 agcgagttag caaagggtgt cgatgttgac acaaaggatg ttattgaatg tctcaaactt
2881 cgacaagggt ttgttgatac agtgacaggt gacagttgta acaatttcat gctcacctat
2941 tcacatcact ctgacttaga gcccagagat cttggcgcat gtattgactg taatgcaagg
3001 aataagggtt aaaacatgac gcccagagat aatgtttcac tcatctggaa tgtaaaagac
3061 catatcaatg cccaagtagc aaaaagtcac gctgcgtaaa caaattcgta gtgctgccaa gaagaacaac
3121 tacatgtctt tatctgaaca gctgcgtaaa caaattcgta gtgctgccaa gaagaacaac
3181 atacctttta gactaacttg tgetacaact agacaggttg tcaatgtcat aactactaaa
3241 atctcactca aggttggttaa gattgttagt acttggttta aacttatgct taaggccaca
3301 ttattgtgag ttcttgctgc attggtttgt tatatcgtaa tgccagtaca tacattgtca
3361 atccatgatg gttacacaaa tgaaatcatt gggtacaaag ccattcagga tgggtgctact
3421 cgtgacatca tttctactga tgattgtttt gcaaaataaac atgctgggtt tgacgcatgg
3481 tttagccagc gtggtgggtc atacaaaaat gacaaaagct gccctgtagt agctgctatc
3541 attacaagag agattgggtt catagtgcct ggcttaccgg gtactgtgct gagagcaatc
3601 aatgggtgact tcttgcatct tctacctcgt gtttttagtg ctggtggcaa catttgctac

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FIGURE 11B

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3661 acaccttcca aactcattga gtatagtgat tttgctacct ctgcttgctg tcttgctgct
3721 gagtgtagaa tttttaagga tgctatgggc aaacctgtgc catattgtta tgacactaat
3781 ttgctagagg gttctatttc ttatagttag cttcgtccag acactcggtta tgtgcttatg
3841 gatggttcca tcatacagtt tcctaacact tacctggagg gttctgttag agtagtaaca
3901 actttttgat ctgagtactg tagacatggg acatgcgaaa ggtcagaagt aggtatttgc
3961 ctatctacca gtggttagat ggttcttaat aatgagcatt acagagctct atcaggagtt
4021 ttctgtgggt ttgatgcat gaatctcata gctaaccatct ttactcctct tgtgcaacct
4081 gtgggtgctt tagatgtgtc tgcttcagta gtggctgggt gtattattgc catattgggtg
4141 acttgtgctg cctactactt tatgaaattc agacgtgttt ttggtgagta caaccatggt
4201 gttgctgcta atgcactttt gtttttgatg tctttcacta tactctgtct ggtaccagct
4261 tacagctttc tgccgggagt ctactcagtc ttttacttgt acttgacatt ctatttcacc
4321 aatgatgttt cattcttggc tcaccttcaa tgggttgcca tgttttctcc tattgtgcct
4381 ttttgataaa cagcaatcta tgtattctgt atttctctga agcactgcca ttggttcttt
4441 aacaactatc ttaggaaaag agtcatgttt aatggagtta catttagtac cttcgaggag
4501 gctgctttgt gtaccttttt gctcaacaag gaaatgtacc taaaattgct tagcgagaca
4561 ctgttgccac ttacacagta taacagggtat cttgctctat ataacaagta caagtatttc
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4681 ctaaatgact ttagcaactc aggtgctgat gtctcttacc aaccaccaca gacatcaatc
4741 acttctgctg ttctgcagag tgggttttag aaaatggcat tcccgtcagg caaagttaga
4801 ggggtgcatg tacaagtaac ctgtggaact acaactctta atggattgtg gttggatgac
4861 acagtatact gtccaagaca tgtcatttgc acagcagaag acatgcttaa tcttaactat
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4981 ctctgtgtta ttggccattc tatgcaaaat tgtctgctta ggcttaaagt tactcttct
5041 aaccttaaga cacccaagta taaatttgtc cgtatccaac ctggtcaaac attttcagtt
5101 ctagcatgct acaatggttc accatctggg gtttatcagt gtgcatgag acctaatcat
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5221 gattgctgtg ctttctgcta tatgcatcat atggagcttc caacaggagt acacgctggt
5281 accgacttag aaggtaaatt ctatgggtcca tttgttgaca gacaaactgc acaggctgca
5341 ggtacagaca caaccataac attaaatgtt ttggcatggc tgtatgctgc tgttatcaat
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5461 atgaagtaca actatgaacc tttagacaaa gatcatgttg acatattggg acctctttct
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6001 aggtctaaag atttggttat gtatgcttca gctttagttt tgcttattct catgacagct
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6121 gtttacaagg tctactatgg taatgcttta gatcaagcta tttccatgtg ggccttagtt
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6241 atagtgtttg tgtgtgttga gtattatcca tattgttgct gctgctactt tggccttttc
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6361 tgtttactca accgttactt caggcttact ctttgccctc ctaagagtag tattgatgct
6421 caagaattta ggtatatgaa ctcccagggg ggtgggtatt ggaggtaaac catgtatcaa ggttgctact
6481 ttcaagctta acattaaagt gttgggtatg acatctgtgg tactgctctc ggttcttcaa
6541 gtacagtcta aaatgtctga cgtaaagtgc acatctgtg gtgtacaact ccacaatgat
6601 caacttagag tagagtcac tcctaaattg tgggcacaat tgggttctct tttgtctggt
6661 attcttcttg caaaagacac aactgaagct ttcgagaaga tgggttctct gctcgataac
6721 ttgctatcca tgcagggtgc tgcaggtat tgcttcagaa tttagtctct taccatcata tgcgcttat
6781 cgtgctactc ttcaggctat tgcttcagaa tttagtctct taccatcata tgcgcttat
6841 gccactgccc aggaggccta tgagcaggct gtagctaatg gtgattctga agtctgtctc
6901 aaaaagttaa agaaatcttt gaatgtggct aaatctgagt ttgaccgtga tgcgtccatg
6961 caacgcaagt tggaaaagat ggcagatcag gctatgaccc aaatgtacaa acaggcaaga
7021 tctgaggaca agagggccca agtcgcttct gctatgcaaa caatgctctt cactatgcta
7081 aggaagcttg ataagatgc acttaacaac attatcaaca atgctgctga tgggtgtgtt
7141 cactcaaca tcataccatt gactacagca gccaaactca tgggtgtgtt actctgggaa
7201 ggtacctaca agaacacttg tgatggtaac acctttacat atgcatctgc actctgggaa
7261 atccagcaag ttgttgatgc ggatagcaag attgttcaac ttagtgaaat taacatggac
7321 aattcaccaa atttggttg gcctcttatt gttacagctc taagagccaa ctcagctggt

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FIGURE 11C

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7381 aaactacaga ataatgaact gagtccagta gcactacgac agatgtcctg tgcggctggt
7441 accacacaaa cagcttgtag tgatgacaat gcacttgccct actataacaa ttcgaagggg
7501 ggtaggtttg tgctggcatt actatcagac caccaagatc tcaaagggc tagattccct
7561 aagagtgatg gtacaggtag aatttacaca gaactggaac caccttgtag gtttggtaca
7621 gacacaccaa aagggcctaa agtgaaatac ttgtacttca tcaaaggctt aaacaacctt
7681 aatagaggta tgggtgctggg cagtttagct gctacagtac gtcttcaggc tggaaatgct
7741 acagaagtac ctgccaattc aactgtgctt tccttctgtg cttttgcagt agaccctgct
7801 aaagcatata aggattacct agcaagtggg ggacaaccaa tcaccaactg tgtgaagatg
7861 ttgtgtacac acactggtac aggacaggca attactgtaa caccagaagc taacatggac
7921 caagagtcct ttggtgggtg ttcatgttgt ctgtattgta gatgccacat tgaccatcca
7981 aatcctaaag gattctgtga cttgaaagggt aagtacgtcc aaatacctac cacttggtgt
8041 aatgacccag tgggtttttac acttagaaac acagtctgta ccgtctgagg aatgtggaaa
8101 ggttatggct gtagttgtga ccaactccgc gaaccttga tgcagtctgc ggatgcatca
8161 acgtttttta acgggtttgc ggtgtaagt cagcccgctc tacaccgtgc ggcacaggca
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8281 caaagttcct aaaaactaat tgctgtgctc tccaggagaa ggatgaggaa ggcaatttat
8341 tagactctta ctttgtagtt aagaggcata ctatgtctaa ctaccaacat gaagagacta
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8461 tagatggtga catggtacca catatatcac gtccagcgtc aactaaatac acaatggctg
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8581 tcgtcacata caattgctgt gatgatgatt atttcaataa gaaggattgg tatgacttcg
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9181 accatttttc tgagttagga gtcgtacata atcaggatgt aaacttacat agctcgcgtc
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9301 atttattgct agataaacgc actacatgct tttcagtagc tgcactaaca aacaatgttg
9361 cttttcaaac tgtcaaaccg ggtaatttta ataaagactt ttatgacttt gctgtgtcta
9421 aagggtttct taagggaagga agttctgttg aactaaaaca cttctctctt gctcaggatg
9481 gcaacgctgc tatcagtgat tatgactatt atcgttataa tctgccaaca atgtgtgata
9541 tcagacaact cctattcgtg gttgaagttg ttgataaata ctttgattgt tacgatgggt
9601 gctgtattaa tgccaaccaa gtaatcgtta acaatctgga taaatcagct ggtttcccat
9661 ttaataaatg gggtaaggct agactttatt atgactcaat gagttatgag gatcaagatg
9721 cacttttctg gtataactaa cgtaatgtca tccctactat aactcaaagt aatcttaagt
9781 atgccattag tgcaaagaat agagctcgca tgaagtcaat agccgccact agaggagcta
9841 tgacaaatag acagtttcat cagaaattat cagtagctgg tgtctctatc agccgccact
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10441 ataacagtaa ctatgcggct caaggtttag tagctagcat taagaacttt aaggcagttc
10501 tttattatca aaataatgtg ttcattgctg aggcaaatg ttggac

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FIGURE 12A

```

1  attagcgata  tgtatgaccc  taggaccaaa  catgtgacaa  aagagaatga  ctctaaagaa
61  ggggtttttca  cttatctgtg  tggatttata  aagcaaaaaac  tagccctggg  tggttctata
121  gctgtaaaga  taacagagca  ttcttggaa  gctgaccttt  acaagcttat  gggccatttc
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241  ggggctaact  atcttggcaa  gccgaaggaa  caaattgatg  gctataccat  gcatgctaac
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361  agcaaatttc  ctcttaaatt  aaggggaact  gctgtaatgt  ctcttaagga  gaatcaaata
421  aatgatatga  tttattctct  tctggaaaaa  ggtaggctta  tcattagaga  aaacaacaga
481  gttgtgggtt  caagtgatat  tcttgttaac  aactaaacga  acatgtttat  tttcttatta
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601  gctcctaatt  acactcaaca  tacttcatct  atgagggggg  tttactatcc  tgatgaaatt
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721  acagggtttc  atactattaa  tcatacgttt  ggcaaccctg  tcataccttt  taaggatggg
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1501  gaggttttta  atgctactaa  attcccttct  gtctatgcat  gggagagaaa  aaaaatttct
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1861  aagcttaggc  cctttgagag  agacatatct  aatgtgcctt  tctcccctga  tggcaaacct
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2221  acatctgaaa  tattagacat  ttcaccttgc  tcttttgggg  gtgtaagtgt  aattacacct
2281  ggaacaaatg  cttcatctga  agttgctgtt  ctatatcaag  atgttaactg  cactgatgtt
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2401  aatgtattcc  agactcaagc  aggtgtctt  ataggagctg  agcatgtcga  cacttcttat
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2521  cgtagtacta  gccaaaaatc  tattgtgggt  tatactatgt  ctttaggtgc  tgatagtcca
2581  attgcttact  ctaataacac  cattgtcata  cctactaact  tttcaattag  cattactaca
2641  gaagtaatgc  ctgtttctat  ggctaaaacc  tccgtagatt  gtaatatgta  catctgcgga
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2761  cgtgcactct  caggtattgc  tgcgaacag  gatcgcaaca  cagtggaagt  gttcgtcaca
2821  gtcaaacaaa  tgtacaaaac  cccaactttg  aaatattttg  gtgggtttta  tttttcacia
2881  atattacctg  accctctaaa  gccaaactaa  aggtctttta  ttgaggactt  gccctttaat
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3181  aggttcaatg  gcattggagt  taccctctatg  gttctctatg  agaaccacaa  acaaatcgcc
3241  aaccaattta  acaaggcgat  tagtcaaatt  caagaatcac  ttacaacac  ttcaactgca
3301  ttgggcaagc  tgcaagacgt  tgtaaccag  aatgctcaag  cattaaacac  acttggttaa
3361  caacttagct  ctaatttttg  tgcaatttca  agtgtgctaa  atgatattct  ttcgcgactt
3421  gataaagtgc  aggcggaggt  acaaattgac  aggttaatta  caggcagact  tcaaagcctt
3481  caaacctatg  taacacaaca  actaatcagg  gctgctgga  tcagggtctc  tgcataatct
3541  gctgctacta  aaatgtctga  gtgtgttctt  ggacaatcaa  aaagagttga  ctttgtgga
3601  aagggtacc  accttatgtc  cttcccacaa  gcagccccgc  atgggtgtgt  cttcctacat

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FIGURE 12B

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3661 gtcacgtatg tgccatccca ggagaggaac ttcaccacag cggcagcaat ttgtcatgaa
3721 ggcaaagcat acttccctcg tgaagggtgtt tttgtgttta atggcacttc ttggtttatt
3781 acacagagga acttcttttc tccacaaata attactacag acaatacatt tgtctcagga
3841 aattgtgatg tcgttattgg catcattaac aacacagttt atgatcctct gcaacctgag
3901 cttgactcat tcaaagaaga gctggacaag tacttcaaaa atcatacatc accagatggt
3961 gatcttggcg acatttcagg cattaacgct tctgtcgtca acattcaaaa agaaattgac
4021 cgctcfaatg aggtcgctaa aaattttaat gaatcactca ttgaccttca agaattggga
4081 aaatatgagc aatatattaa atggccttgg tatgtttggc tcgggttcat tgctggacta
4141 attgccatcg tcatgggttac aatcttgctt tgttgcatga ctagtgttg tagttgcctc
4201 aagggtgcat gctcttgtgg ttcttgctgc aagtgtgatg aggatgactc tgagccagtt
4261 ctcaaggggtg tcaaattaca ttacacataa acgaacttat ggatttgttt atgagatttt
4321 ttactcttgg atcaattact gcacagccag taaaaactga caatgcttct cctgcaagta
4381 ctgttcatgc tacagcaacg ataccgctac aagcctcact ccctttcgga tggcttggtt
4441 ttggcggtgc atttcttgct gtttttcaga gcgctaccaa aataattgcg ctcaataaaa
4501 gatggcagct agccctttat aagggttcc agttcatttg caatttactg ctgctatttg
4561 ttaccatcta ttcacatctt ttgcttgctg ctgcaggtat ggaggcgcaa tttttgtacc
4621 tctatgcctt gatatacttt ctacaatgca tcaacgcatg tagaattatt atg
```


FIGURE 13

```

1 aaagaacctt gccatcagc aacatacgag ggcaattcac catttcaccc tcttgctgac
61 aataaatttg cactaacttg cactagcaca cactttgctt ttgcttgctg tgacgggtact
121 cgacataacct atcagctgcg tgcaagatca gtttcaccaa aacttttcat cagacaagag
181 gaggttcaac aagagctcta ctgccactt tttctcattg ttgctgctct agtattttta
241 atactttgct tcaccattaa gagaaagaca gaatgaatga gctcacttta attgacttct
301 atttgtgctt tttagccttt ctgctattcc ttgttttaat aatgcttatt atattttgggt
361 tttcactcga aatccaggat ctagaagaac cttgtaccaa agtctaaacg aacatgaaac
421 ttctcattgt tttgacttgt atttctctat gcagttgcat atgcactgta gtacagcgct
481 gtgcatctaa taaacctcat gtgcttgaag atccttgtaa ggtacaacac taggggtaat
541 acttatagca ctgcttggct ttgtgctcta ggaaagggtt taccttttca tagatggcac
601 actatgggtc aaacatgcac acctaattgt actatcaact gtcaagatcc agctgggtgg
661 gcgcttatag ctagggtgtg gtaccttcat gaaggtcacc aaactgctgc atttagagac
721 gtacttggtt ttttaaataa acgaacaaat taaaatgtct gataatggac cccaatcaaa
781 ccaacgtagt gcccccgca ttacatttgg tggaccacac gattcaactg acaataacca
841 gaatggagga cgcaatgggg caaggccaaa acagcgccga cccaagggtt taccacaata
901 tactgctctt tgggttcacag ctctcactca gcatggcaag gaggaactta gattccctcg
961 aggccagggc gttccaatca acaccaatag tggtcagat gaccaaattg gctactaccg
1021 aagagctacc cgacgagttc gtggtggtga cggcaaaatg aaagagctca gccccagatg
1081 gtactttctat tacctaggaa ctggcccaga agcttcactt ccctacggcg ctaacaaaga
1141 aggcacgta tgggttgcaa ctgagggagc cttgaataca cccaaagacc acattggcac
1201 ccgcaatcct aataacaatg ctgccaccgt gctacaactt cctcaaggaa caacattgcc
1261 aaaaggcttc tacgcagagg gaagcagagg cggcagtcac gcctcttctc gctcctcatc
1321 acgtagtcgc ggtaattcaa gaaattcaac tcctggcagc agtaggggaa attctcctgc
1381 tcgaatggct agcggagggt gtgaaactgc cctcgcgcta ttgctgctag acagattgaa
1441 ccagcttgag agcaaagttt ctggtaaagg ccaacaacaa caaggccaaa ctgtcactaa
1501 gaaatctgct gctgaggcat ctaaaaagcc tcgcaaaaaa cgtacagcca caaaacagta
1561 caacgtcact caagcatttg ggagacgtgg tccagaacaa acccaaggaa atttcggggg
1621 ccaagacctt atcagacaag gaactgatta caaacatttg ccgcaaattg cacaatttgc
1681 tccaagtgcc tctgcattct ttggaatgtc acgcattggc atggaagccg caccttcggg
1741 aacatggctg acttatcatg gagccattaa attggatgac aaagatccac aattcaaaga
1801 caacgtcata ctgctgaaca agcacattga cgcatacaaa acattcccac caacagagcc
1861 taaaaaggac aaaaagaaaa agactgatga agctcagcct ttgccgcaga gacaaaagaa
1921 gcagcccact gtgactcttc ttctgcggc tgacatggat gatttctcca gacaacttca
1981 aaattccatg agtggagctt ctgctgattc aactcaggca taaacactca tgatgaccac
2041 acaaggcaga tgggctatgt aaacgttttc gcaattccgt ttacgataca tagtctactc
2101 ttgtgcagaa tgaattctcg taactaaaca gcacaagtag gtttagttaa ctttaattctc
2161 acatagcaat ctttaatcaa tgtgtaacat tagggaggac ttgaaagagc caccacattt
2221 tcatcgaggc cacgcggagt acgatcgagg gtacagtga taatgctagg gagagctgcc
2281 tatatggaag agccctaatt tgta

```

Figure 14A

1 caagtccttc aaaaccattg ttgagtcctg cggtaactat aaagttacca agggaaagcc
 61 cgtaaaaggt gcttggaaaca ttggacaaca gagatcagtt ttaacaccac tgtgtgggtt
 121 tccctcacag gctgctgggtg ttatcagaac aatttttgcg cgcacacttg atgcagcaaa
 181 ccactcaatt cctgatttgc aaagagcagc tgcaccata ctgatggta ttctgaaca
 241 gtcattacgt ctgtcgacg ccatggttta tacttcagac ctgctacca acagtgtcat
 301 tattatggca tatgaactg gtggcttgtt acaacagact tctcagtggt tcttaactt
 361 ttggggcact actgttgaaa aactcaggcc tatctttgaa tggattgagg cgaaacttag
 421 tgcaggaggt gaatttctca aggatgcttg ggagattctc aaatttctca ttacagggtg
 481 ttttgacatc gcaagggtc aaatacaggt tgcctcagat aacatcaagg attgtgtaa
 541 atgcttcatt gatgttgta acaaggcact cgaaatgtgc attgatcaag tcactatgc
 601 tggcgcaag ttgcgacac tcaacttagg tgaagtcttc atcgctcaaa gcaagggact
 661 ttaccgtcag tgtatcgtg gcaaggagca gctgcaacta ctcctgcctc ttaaggcacc
 721 aaaagaagta acctttcttg aaggtgattc acatgacaca gtacttacct ctgaggagggt
 781 tgttctcaag aacgggtgaac tcgaagcact cgagacgccc gttgatagct tcacaaatgg
 841 agctatcgtt ggcacaccag tctgtgtaa tggcctcatg ctcttagaga ttaaggacaa
 901 agaacaatac tgcgcatgtt ctcttggtt actggctaca aacaatgtct ttcgcttaaa
 961 aggggggtgca ccaattaaag gtgtaacctt tggagaagat actgtttggg aagttaagg
 1021 ttacaagaat gtgagaatca calttgagct tgatgaacgt gttgacaaag tgcctaatga
 1081 aaagtgtctt gctacactg ttgaatccgg taccgaaggt actgagtttg catgtgtgt
 1141 agcagaggct gtttgaaga ctttacaacc agtttctgat ctcttaccac acatgggtat
 1201 tgaatctgat gagggtgag tagctacatt ctacttatt gatgatgctg gtgaagaaaa
 1261 cttttatca cgtatgtatt gtctcttta cctccagat gaggaagaag aggacgatgc
 1321 agagtgtgag gaagaagaaa ttgatgaac ctgtgaacat gactacggtg cagaggatga
 1381 ttatcaaggt ctccctcttg aatttgggc ctacagtgaa acagttcgag ttgaggaaga
 1441 agaaggaggaa gactggctgg atgatactac tgagcaatca gagattgagc cagaaccaga
 1501 acctacacct gaagaaccag ttaactagtt tactggttat ttaaaactta ctgacaatgt
 1561 tgcattataa tgtttgaca ccgttaagga ggcacaaagt gctaactcta tgggtattgt
 1621 aaatgtctgt aacatacacc tgaacatgg tgggtgtgta gcagggtgcac tcaacaaggc
 1681 aaccaatggt gccatgcaaa aggagagtga tgattacatt aagctaaatg gccctcttac
 1741 agtaggagggt tcttgtttgc ttctggaca taatcttctt aagaagtgtc tgcattgtt
 1801 tggacctaac ctaaatgcag gtgaggacat ccagcttctt aaggcagcat atgaaaatt
 1861 caattcacag gacatcttac ttgcaccatt gttgtcagca ggcatatttg gtgctaaacc
 1921 acttcagctt itacaagtgt gcgtgcagac gggtctgaca caggtttata ttgcagtcaa
 1981 tgacaaagct cttatgagc aggttgatc ggattatctt gataacctga agcctagagt
 2041 ggaagcacct aaacaaggag agccaccaa cacagaagat tcaaaaactg aggagaaatc
 2101 tgtctgacag aagcctgtcg atgtgaagcc aaaaatttag gcctgcattg atgaggttac
 2161 cacaacactg gaagaacta agtttctac caataagttt ctctgtttg ctgatatcaa
 2221 tggtaagctt taccatgatt ctcaaacat gcttagaggt gaagatatgt ctttcttga
 2281 ggaggatgca cttacatgg taggtgatgt tatcactagt ggtgatatca ctgtgttgt
 2341 aataccctcc aaaaaggctg gtggcactac tgagatgctc tcaagagctt tgaagaaagt
 2401 gccagttgat gattatataa ccacgtacc ttggacaagga tgtgctggtt atacattga
 2461 ggaagctaa actgctctta agaaatgcaa aictgcattt tatgtactac ctgcagaagc
 2521 acctaatgtc aaggaagaga ttctaggaac tgtatccttg aatttgagag aaatgcttgc
 2581 tcatgtgaa gaggcaagaa aattaatgcc tatatgatg gatgttagag ccataatggc
 2641 aaccatcaa cgtaatata aaggagttaa aattcaagag ggcacgttg actatggtgt
 2701 ccgattcttc ttatactaa gtaaagagcc ttagcttctt attattacga agctgaactc
 2761 tctaaatgag ccgttctgca caatgccaat tggttatgtg acacatggtt ttaacttga
 2821 agaggctgag cgctgtatgc gtctcttaa agctcctgcc gtagtgcag tatcatcacc
 2881 agatgctgtt actacatata atggatacct cacttcgtca tcaaagacat ctgaggagca
 2941 cttgtagaa acagtttctt tggctggctc ttacagagat tggctctatt caggacagcg
 3001 tacagagta ggtgttgaat ttcttaagcg tggtagacaa attgtgtacc acacctgga

Figure 14B

3061 gagccccgtc gagtttcac ttgacgggtga gggtctttca ctgacaaac taaagagtct
3121 cttatccctg cgggagggtta agactataaa agtggttcaca actgtggaca acactaatct
3181 ccacacacag ctgtgggata tgtctatgac atatggacag cagtttggtc caacatactt
3241 ggatgggtgct gatgttaca aaattaaacc tcatgtaaat catgagggta agactttctt
3301 tgtactacct agtcatgaca cactacgtag tgaagctttc gactactacc atactcttga
3361 tgagagtttt ctgtgtaggt acatgtctgc tttaaaccac acaaagaaat ggaaatttcc
3421 tcaagttggt gggttaactt caattaaatg ggctgataac aattgttatt tgtctagtgt
3481 ttattagca cttaacagc ttgaagtc aaattcaatgca ccagcacttc aagagg

FIGURE 15A

1 caaaataatg tgttcattgc tgaaggcaaaa tgttggactg agactgacct tactaaagga
 61 cctcacgaat ttgtctaca gcatacaatg ctagttaaac aaggagatga ttacgtgtac
 121 ctgccctacc cagatccatc aagaatatta ggcgcaggct gttttgtcga tgataattgc
 181 aaaacagatg gtacacttat gattgaaagg ttctgtgtac tggctattga tgcctacca
 241 cttacaaaac atcctaatac ggagtatgct galgtcttct acttgatttt acaatacatt
 301 agaaagtac atgatgagct tactggccac atgttggaac tgtattccgt aatgctaact
 361 aatgataaca cctcacggta ctgggaacct gagttttatg aggttatgta cacaccacat
 421 acagtcttgc aggtctttagg tgccttctga ttgtgcaatt cacagacttc acttcgttgc
 481 ggtgcctgta ttaggagacc actcctatgt tgcaagtgtc gctatgacca tgcatttca
 541 acatcacaca aattagtgtt gtcgtttaat ccctatgitt gcaatgcccc aggttctgat
 601 gtacactgatg tgacacaact gtatctagga ggtatgagct attattgcaa gtcacataag
 661 cctcccatia gtttccatt atgtgcta atggcagggt ttggtttata caaaaacaca
 721 tgtgtaggca gtgacaatgt cactgacttc aatgcgatag caacatgta ttggactaat
 781 gctggcgatt acatacttgc caacactgt actgagagac tcaagctttt cgcagcagaa
 841 acgtcaaag cactgagga aacatttaag ctgtcatatg gtattgccac tgtacgcgaa
 901 gtactcttgc acagagaatt gcatcttca tgggagggtg gaaaacctag accaccattg
 961 aacagaaaat atgtctttac tggttaccgt gtaactaaaa atagtaaatg acagattgga
 1021 gagtacacct ttgaaaaagg tgaactatgt gatgtgttg tgtacagagg tactacgaca
 1081 tacaagtga atgttggta ttactttgtg ttgacatctc acactgta atgccctttagt
 1141 gcacttactc tagtgccaca agagcactat gtgagaatta ctggcttcta cccaacactc
 1201 aacatctcag atgagtttc tagcaatgtt gcaattatc aaaaggctcg catgcaaaag
 1261 tactctacac tcaaggacc acctggtact ggtaagagtc attttccat cggacttgct
 1321 ctctattacc catctgtctc catagtgtat acggcatgct ctcatgcagc tgttgatgcc
 1381 ctatgtgaaa aggcattaaa atatttccc atagataaat gtagtagaat catacctgcg
 1441 cgtgcgcgcg tagagtgtt tgataaattc aaagtgaatt caacactaga acagtatgtt
 1501 ttctgcactg taaatgcatt gccagaaaca actgctgaca ttgtatctt tgaatgaatc
 1561 tctatggcta ctaattatga ctgagtgtt gtcaatgcta gacttcgtgc aaaacactac
 1621 gtctatattg gcgacctgc tcaattacca gcccccgca cattgctgac taaaggcaca
 1681 ctgaaccag aatatlttaa ttacgtgtgc agacttata aaacaatagg tccagacatg
 1741 ttcttggaa ctgtgcgcg ttgtccgtc gaaattgtg acactgtgag tgccttagtt
 1801 tatgacaata agctaaaagc acacaaggag aagtcagctc aatgctcaa aatgttctac
 1861 aaagggtgta ttacacatga ttttcatct gcaatcaaca gacctcaat aggcgttcta
 1921 agagaatttc ttacacgcaa tctgtcttg agaaaagctg ttttatctc acctataat
 1981 tcacagaacg ctgtagcttc aaaaatctta ggattgccta cgcagactgt tgattcatca
 2041 cagggttctg aatatgacta tgcataatc acacaaacta ctgaacagc acactctgt
 2101 aatgtcaac gcttcaatgt ggctatcaca agggcaaaaa ttggcatttt gtgcataatg
 2161 tctgatagg atctttatga caaactgcaa tttaacagtc tagaataacc acgtcgcaat
 2221 gtggctacat tacaagcaga aaatgtaact ggactttta aggactgtag taagatcatt
 2281 actggcttct atcctacaca ggcacctaca cactcagcg ttgatataaa gttcaagact
 2341 gaaggattat gtgttgacat accaggcata ccaaaggaca tgacctaccg tagactcatc
 2401 tctatgatgg gtttcaaat gaattacca gtcaatggtt acctaatat gtttatcacc
 2461 cgcgaagaag ctattcgtca cgttcgtgcg tggattggct ttgatgtaga gggctgtcat
 2521 gcaactagag atgtgtggg tactaaccta cctctccagc taggatttct tacagggtt
 2581 aacttagtag ctgtaccgac tggttatgtt gacactgaaa ataacacaga attcaccaga
 2641 gttaatgcaa aacctccacc aggtgaccag tttaaacatc ttataccact catgtataaa
 2701 ggcttgcctt ggaatgtagt gcgtattaag atagtacaaa tgcctagtga tactgaaa
 2761 ggattgtcag acagagtcgt gtctgtctt tggcgcatg gctttgagct tacatcaatg
 2821 aagtaatttg tcaagattgg acctgaaaga acgtgttgc tgtgtgacaa acgtgcaact
 2881 tgccttctca ctctacaga tacttatgcc tgcgtgaalc attctgtggg ttttgaclat
 2941 gtctataacc catttatgat tgaattcag cagtggggct ttacgggtaa ccttcagagt
 3001 aacctagacc aacattgcca ggtacatgga aatgcacatg tggctagtgt tgaatctatc

FIGURE 15B

3061 atgactagat gtttagcagt ccatgagtgc ttgttaagc gcgttgattg gtctgttgaa
 3121 tacctatta taggagatga actgagggtt aattcgtctt gcagaaaagt acaacacatg
 3181 gttgtgaagt ctgcattgct tgctgataag ttccagttc ttcagacat tggaaatcca
 3241 aaggctatca agtgtgtgcc tcaggctgaa gtagaatgga agttctacga tgctcagcca
 3301 ttagtgaca aagcttaca aatagaggaa ctcttctatt ctatgtctac acatcacgat
 3361 aaattcactg atgggtgttg ttgttttg aattgtaacg ttgacgtta cccagccaat
 3421 gcaattgtgt gtaggttga cacaagagtc ttgtcaact tgaacttacc aggctgtgac
 3481 ggtggtagtt ttagtgtaa taagcatgca ttccacactc cagcttctga taaaagtga
 3541 ttactaatt taaagcaatt gcctttctt tactattctg atagtccttg tgagtcicat
 3601 ggcaacaag tagtgctgga tattgattat gttccactca aatctgtac gtgtattaca
 3661 cgatgcaatt taggtgtgct ttttgaga caccatgcaa atgagtaccg acagtacttg
 3721 gatgcatata atatgatgat ttctgctgga tttagcctat ggatttaca acaattgat
 3781 acttataacc tgtggaatac atttaccagg ttacagagtt tagaaaatgt ggttataat
 3841 gttgttaata aaggacactt tgatggacac gccggcgaag cacctgttct catcattaat
 3901 aatgctgitt acacaagggt agatggtatt gatgtggaga tcttgaaag taagacaaca
 3961 ctctctgta atgttgcat tgagcttgg gctaagcgta acattaaacc agtgcagag
 4021 attaagatac tcaataattt ggggttgat atcgtgcta atactgtaat ctgggactac
 4081 aaaagagaag cccagcaca tgtgttaca atagggtct gcacaatgac tgacattgcc
 4141 aagaaacctt ctgagagtgc ttgttctca ctactgtct tgttgatgg tagagtggaa
 4201 ggacaggtag accttttag aaacgccgt aatggtgitt taataacaga aggttcagtc
 4261 aaaggtctaa caccttcaaa gggaccagca caagctagcg tcaatggagt cacattaatt
 4321 ggagaatcag taaaacaca gtttaactac tttaagaaag tagacggcat tattcaacag
 4381 ttgctgaaa cctactttac tcagagcaga gacttagagg attttaagcc cagatcaca
 4441 atggaaactg actttctga gctcgctatg gatgaattca tacagcgata taagctcgag
 4501 ggctatgcct tcgaacacat cgtttatgga gatttcagtc atggacaact tggcggctct
 4561 catttaaga taggttagc caagcgctca caagattcac cacttaatt agaggatttt
 4621 atccctatgg acagcacagt gaaaaattac ttcataacag atgcgcaaac aggttcata
 4681 aaatgtgtgc gttctgtgat tgatcttcta cttagatgact ttgtcgagat aataaagta
 4741 caagatttgt cagtgtttc aaaagtggc aaggttaca ttgactatgc tgaatttca
 4801 ttcagcttt ggtgtaagga tggacatgtt gaaaccttct acccaaaact acaagcaagt
 4861 caagcgtggc aaccagggtt tgcgatgcct aactgttaca agatgcaag aatgcttctt
 4921 gaaaagtgtg accttcagaa ttatggtgaa aatgctgta taccaaaagg aataatgatg
 4981 aatgtcgcaa agtatactca actgtgtcaa tacttaata cacttacttt agctgtacc
 5041 tacaacatga gagttattca ctttggtgct ggctctgata aaggagtgc accaggtaca
 5101 gctgtgtca gacaatggtt gccaaactggc acactacttg tgaattcaga tcttaatgac
 5161 ttcgtctccg acgcagattc tactttaatt ggagactgtg caacagtaca tacggcta
 5221 aaatgggacc ttattatag cgatatgat gaccctagga cc

FIGURE 16

1 cactacttta tgaigccaac tactttgttt gctggcacac acataactat gactactgta
 61 taccatataa cagtgtcaca gatacaattg tcgttactga aggtgacggc atttcaacac
 121 caaaactcaa agaagactac caaatgggtg gtattctga ggataggcac tcaggtgtta
 181 aagactatgt cgttgtacat ggctatttca ccgaagtta ctaccagctt gagtctacac
 241 aaattactac aaacactggt attgaaaatg ctacattctt catctttaac aagcttgtta
 301 aagaccacc gaattgtcaa atacacacaa tcgacggctc ttcaggagt gctaatccag
 361 caatggatcc aatttatgat gagccgacga cgactactag cgtgcctttg taagcacaag
 421 aaagttagta cgaacttatg tactcattcg ttccggaaga aacaggtagc ttaatagtta
 481 atagcgtact tcttttctt gccctcgtgg tattcttgct agtcacacta gccatcctta
 541 ctgcgcttcg attgtgtgca tactgctgca atattgttaa cgtgagtta gtaaaaccaa
 601 cggittacgt ctactcgggt gtaaaaaac tgaactcctc tgaaggagt cctgalcttc
 661 tggcttaaac gaactaacta ttattattat tctgtttgga actttaacat tgcctatcat
 721 ggacagacaac ggtactatta ccgttgagga gcttaacaa ctccctggaac aatggaacct
 781 agtaataggt tccctatcc tagcctggat tatgttacta caatttgcct attctaactg
 841 gaacagggtt ttgtacataa taaagctgt ttccctctgg ctcttggtgc cagtaacact
 901 tgcctgtttt gtgcttgctg ctgtctacag aaltaattgg gtgactggcg ggattgcgat
 961 tgcaatggct tgtattgtag gcttgatgtg gcttagctac ttcgttgctt ccttcaggct
 1021 gtttgcctgt acccgctcaa tgggtcatt caaccggaa acaaacattc ttccaatgt
 1081 gccctccgg gggacaattg tgaccagacc gctcatggaa agtgaacttg tcattggtgc
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 1201 ggacctgcca aaagagatca ctgtggctac atcacgaacg ctttctatt acaaattagg
 1261 agcgtcgcag cgtgtaggca ctgattcagg ttgtctgca tacaaccgt acgtattgg
 1321 aaactataaa ttaatacag accacgccgg tagcaacgac aatattgctt tgctagtaca
 1381 gtaagtgaca acagatgttt catctgttg acttccagggt tacaatagca gagatattga
 1441 ttatcattat gaggacttc aggattgcta ttggaatct tgacgttata ataagtcaa
 1501 tagtgagaca attatttaag cctctaacta agaagaatta ttcggagtta gatgatgaag
 1561 aacctatgga gttagattat ccataaacg aacatgaaa ttattctctt cctgacattg
 1621 attgtattta catcttgca gctatatcac tatcaggagt gtgttagagg tacgactgta
 1681 ctactaaaag aaccttgccc atcagcaaca tacgagggca attcaccatt tcacctctt
 1741 gctgacaata aattgcact aactgcact agcacacact ttgctttgc ttgtgctgac
 1801 g

FIGURE 17

1 aaagaacctt gccatcagc aacatacgag ggcaattcac catttcaccc tcttgcgtac
 61 aataaatttg cactaacttg cactagcaca cactttgctt ttgcttgc tgacgggtact
 121 cgacatacct atcagctgcg tgcaagatca gtttcaccaa aacttttcat cagacaagag
 181 gaggttcaac aagagctcta ctgccactt ttctcattg ttgctgctct agtatittta
 241 atactttgct tcaccattaa gagaagaca gaatgaatga gctcacttta attgacttct
 301 atttgcgtt tttagccitt ctgctattcc ttgtttaat aatgcttatt atattttggt
 361 ttctactcga aatccaggat ctagaagAAC ctgtaccAA agtctaaacg aacatgaaac
 421 ttctcattgt ttgacttgt atttctctat gcagttgcat atgcactgta gtacagcgct
 481 gtgcacttaa taaacctcat gtgcttgaag atccttgtaa ggtacaacac taggggtaat
 541 acttatagca ctgcttggct ttgtgctcta ggaaagggtt taccttttca tagatggcac
 601 actatgggtc aaacatgcac acctaagtgt actatcaact gtcaagatcc agctgggtgt
 661 gcgcttatag ctagggtgtg gtaccttcat gaaggtcacc aaactgctgc atttagagac
 721 gtacttgttg ttttaataa acgaacaat taaatgtct gataatggac cccaatcaa
 781 ccaacgtagt gcccccgca ttacatttgg tggaccaca gattcaactg acaataacca
 841 gaatggagga cgcaatgggg caaggccaaa acagcgccga cccaagggtt tacccaataa
 901 tactgcgtct tggttcacag ctctactca gcatggcaag gaggaactta gattccctcg
 961 aggccagggc gtccaatca acaccaatag tggccagat gaccaaatg gctactaccg
 1021 aagagctacc cgacgagttc gtggtgtgta cggcaaaatg aaagagctca gccccagatg
 1081 gtacttctat tacctaggaa ctggccaga agcttcaact ccctacggcg ctaacaaga
 1141 aggcacgtta tgggttgcaa ctgaggagc ctggaataca cccaagacc acattggcac
 1201 ccgcaatcct aataacaatg ctgccaccgt gctacaact cctcaaggaa caacattgcc
 1261 aaaaggcttc tacgcagagg gaagcagagg cggcagtcAA gcctctctc gctcctcctc
 1321 acgtagtgcg ggtaattcaa gaaattcaac tcctggcagc agtaggggaa atttccctgc
 1381 tcgaatggct agcggagggtg gtgaaactgc cctcgcgcta ttgctgctag acagattgaa
 1441 ccagcttgag agcaaagttt ctggttaaagg ccaacaacaa caaggccaaa ctgtactaa
 1501 gaaatctgct gctgaggcat ctaaaaagcc tcgcaaaaaa cgtacagcca caaaacagta
 1561 caacgtcact caagcatttg ggagacgtgg tcagaacaa acccaaggaa atttcgggga
 1621 ccaagaccta atcagacaag gaactgatta caaacattgg ccgcaaatg cacaatttgc
 1681 tccaagtgcc tctgaltct ttggaatgtc acgcattggc atggaagccg cacttcggg
 1741 aacatggctg acttatcatg gagccattaa attggatgac aaagatccac aattcaaaga
 1801 caacgtcata ctgtgaaca agcacattga cgcatacaa acattcccac caacagagcc
 1861 taaaaaggac aaaaagaaaa agactgatga agctcagcct ttcccgaga gacaaaagaa
 1921 gcagcccact gtgactcttc ttctgcggc tgacatggat gatttctca gacaacttca
 1981 aaattccatg agtggagctt ctgctgattc aactcaggca taaacactca tgatgaccac
 2041 acaaggcaga tgggctatgt aaacgtttc gcaattccgt ttacgataca tagtctactc
 2101 ttgtgcagaa tgaattctcg taactaaaca gcacaagtag gtttagttaa cttaatctc
 2161 acatagcaat cttaataca tgtgtaacat tagggaggac ttgaaagagc caccacattt
 2221 tcatcgaggc cagcgggagt acgatcagg gtacagttaa taatgctagg gagagctgcc
 2281 tatatggaag agccctaag tgta

FIGURE 18A

1 caagtcttcc aaaaccattg ttgagtcctg cggttaactat aaagttacca agggaaagcc
 61 cgtaaaaggt gcttggaaca ttgacaaca gagatcagtt ttaacaccac tgtgtggttt
 121 tccctcacag gctgctggg ttatcagatc aatttttgcg cgcacacttg atgcagcaaa
 181 ccactcaatt cctgatttgc aaagagcagc tgtcaccata ctgatggta ttctgaaca
 241 gtcattacgt ctgtcgacg ccatggttta tacttcagac ctgctacca acagtgtcat
 301 tattatggca tatgtaactg gtggtcttgt acaacagact tctcagtggg tgtctaact
 361 tttgggcaact actgttgaag aactcaggcc tatctttgaa tggattgagg cgaaacttag
 421 tgcaggaggt gaatttctca aggatgcttg ggagattctc aaatttctca ttacagggtg
 481 ttttgacatc gtcaaggggc aaatacaggt tgcttcagat aacatcaagg attgtgtaa
 541 atgcttcatt gatgtgtta acaaggcact cgaaatgtgc attgatcaag tcactatgc
 601 tggcgcaaaag ttgcgatcac tcaacttagg tgaagtcttc atcgctcaaa gcaagggact
 661 ttaccgtcag gtatacgtg gcaaggagca gctgcaacta ctatgcctc ttaaggcacc
 721 aaaagaagta accttcttg aagggtgatt acatgacaca gtacttacct ctgaggaggt
 781 tgttctcaag aacgggtgaac tcgaagcact cgagacgccc gttgatagct tcacaaatgg
 841 agctatcgtt ggcacaccag tctgtgtaa tggcctcatg ctcttagaga ttaaggacaa
 901 agaacaatac tgcgcattgt ctctggttt actggctaca aacaatgtct ttgccttaa
 961 aggggggtgca ccaattaaag gtgtaacctt tggagaagat actgtttggg aagtcaagg
 1021 ttacaagaat gtgagaatca catttgagct tgatgaacgt gttgacaaag tgcttaatga
 1081 aaagtctct gtctacactg ttgaatccgg taccgaagtt actgagtttg catgtgtgt
 1141 agcagaggct gttgtgaaga ctttacaacc agtttctgat ctcttacca acatgggtat
 1201 tgatcttgat gagtggagtg tagctacatt ctacttatt gatgatgctg gtgaagaaaa
 1261 cttttatca cgtatgtatt gtctcttta cctccagat gaggaagaag aggacgatgc
 1321 agagtgtgag gaagaagaaa ttgatgaac ctgtgaacat gactacggtg cagaggatga
 1381 ttatcaaggt ctccctctgg aatttggtgc ctacagtgaa acagttcgag ttgaggaaga
 1441 agaagaggaa gactggctgg atgatactac tgagcaatca gagattgagc cagaaccaga
 1501 acctacacct gaagaaccag ttaatcagtt tactggttat ttaaaactta ctgacaatgt
 1561 tgccattaaa tgtgttgaca ccgttaagga ggcacaaagt gctaactcta tgggtattgt
 1621 aaatgctgct aacatacacc tgaacatgg tgggtgtgta gcagggtcac tcaacaaggc
 1681 aaccaatggg gccatgcaaa aggagagtga tgattacatt aagctaaatg gccctcttac
 1741 agtaggaggg tcttgttgc tttctggaca taactctgct aagaagtgtc tgcattgtgt
 1801 tggacctaac ctaaatgcag gtgaggacat ccagcttctt aaggcagcat atgaaaattt
 1861 caattcacag gacatcttac ttgcaccatt gttgtcagca ggcatatttg gtgctaaacc
 1921 acttcagtct ttacaagtgt gcgtgcagac ggttcgtaca caggtttata ttgagtgcaa
 1981 tgacaaagct ctttatgagc aggttgatc ggattatctt gataacctga agcctagagt
 2041 ggaagcacct aaacaagagg agccacaaa cacagaagat tccaaaactg aggagaaatc
 2101 tgcgtacag aagcctgtcg atgtgaagcc aaaaattaag gcctgcattg atgaggttac
 2161 cacaacactg gaagaacta agtttctac caataagttt ctctgtttg ctgalatcaa
 2221 tggtaagctt taccatgatt ctgagaacat gcttagaggt gaagatatgt ctttcttga
 2281 ggaggatgca ccttacatgg taggtgatgt tatcactagt ggtgatatca cttgtgtgt
 2341 aataccctcc aaaaaggctg gtggcactac tgagatgctc tcaagagctt tgaagaaagt
 2401 gccagttgat gagtatataa ccacgtaccc tggacaagga tgtgctggtt atacacttga
 2461 ggaagctaag actgctctta agaaatgcaa atctgcattt tatgtactac cttcagaagc
 2521 acctaagctt aaggaagaga ttctaggaac tgatcctgg aatttagag aaatgcttgc
 2581 tcattgctgaa gaggaagaa aattaatgcc tatatgcatg gatgttagag ccataatggc

FIGURE 18B

2641 aaccatccaa cgtaagtata aaggaggttaa aattcaagag ggcatcggtg actatgggtg
2701 ccgattcttc ttttatacta gtaaagagcc thtagcttct attattacga agctgaactc
2761 tctaaatgag ccgcttgta caatgccaat tggttatgtg acacatgggt ttaatcttga
2821 agaggctgcg cgctgtatgc gttctcttaa agtcctgcc gtagtgtcag tatcatcacc
2881 agatgctgtt actacatata atggatacct cacttcgtca tcaaagacat ctgaggagca
2941 cttttagaaa acagtttctt tggctggctc ttacagagat tggctctatt caggacagcg
3001 tacagagtta ggtgttgaat ttcttaagcg tggtagacaaa attgtgtacc acaccctgga
3061 gagccccgtc gagtttcac ttgacgggtga ggttcttca ctgacaaac taaagagtct
3121 cttatccctg cgggagggtta agactataaa agtggtcaca actgtggaca acactaatct
3181 ccacacacag cttgtggata tgtctatgac atatggacag cagtttggtc caacatactt
3241 ggatgggtgct gatgttataa aaattaaacc tcatgtaat catgagggtta agactttctt
3301 tgtactacct agtgatgaca cactacgtag tgaagcttgc gactactacc atactcttga
3361 tgagagtttt cttggtaggt acatgtctgc tttaaccac acaaagaaat ggaaatttcc
3421 tcaagttggt ggttaactt caattaaatg ggctgataac aattgttatt tgtctagtgt
3481 tttattagca cttcaacagc ttgaagtcaa attcaatgca ccagcacttc aagagg

FIGURE 19

1 cattacttta tgatccaac tactttgttt gctggcacac acataactat gactactgta
 61 taccataata cagtgicaca gatacaattg tcgttactga aggtgacggc atttcaacac
 121 caaaactcaa agaagactac caaattgggtg gttattctga ggataggcac tcagggttta
 181 aagactatgt cgltgtacat ggctatttca ccgaagtta ctaccagctt gagtctacac
 241 aaattactac aaacacitggt attgaaaatg ctacattctt catctttaac aagcittgta
 301 aagaccacc gaatgtgcaa atacacacaa tcgacggctc ttcaggagtt gctaatccag
 361 caatggatcc aatttatgat gagccgacga cgactactag cgtgcctttg taagcacaag
 421 aaagttagta cgaacttatg tactcattcg ttccggaaga aacaggtagc ttaatagtta
 481 atagcgtact tcttttctt gccttcgttg tattcttgct agtcacacta gccatcctta
 541 ctgcgcttcg attgtgtgcg tactgctgca atattgttaa cgtgagtta gtaaaacaa
 601 cggtttactg ctactgcgt gtaaaaaatc tgaactctcc tgaaggagtt cctgatcttc
 661 tggcttaaac gaactaacta ttattattat tctgtttgga actttaacat tgcctatcat
 721 ggagacaac ggtactatta ccgttgagga gcttaacaa ctccctggaac aatggaacct
 781 agtaataggt ttctattcc tagcctggat tatgttacta caattgcct attctaactg
 841 gaacagggtt ttgtacataa taaagctgtt ttccctctgg ctctgtggc cagtaacact
 901 tgctgtttt gtgcttgctg ctgtctacag aattaattgg gtgactggcg ggattgcgat
 961 tgcaatggct tgattgtag gcttgatgtg gcttagctac ttcgttgctt ccttcaggct
 1021 gtttgctcgt acccgctcaa tgtggtcatt caaccggaa acaaacattc ttccaatgt
 1081 gcctctccgg gggacaattg tgaccagacc gctcatggaa agtgaacttg tcattgggtc
 1141 tgtgatcatt cgtggtcact tgcgaatggc cggacactcc ctaggcgct gtgacattaa
 1201 ggacctgcca aaagagaica ctgtggctac atcacgaacg ctttctatt acaaattagg
 1261 agcgtcgag cgtgtaggca ctgattcagg tttgtctgca tacaaccgct accgtattgg
 1321 aaactataaa ttaataacag accacgccgg tagcaacgac aatattgctt tgctagtaca
 1381 glaagtgaca acagatgltt catctgttg acttccaggt tacaatagca gagatattga
 1441 ttatcattat gaggacttc aggattgcta ttgggaatct tgacgttata ataagltcaa
 1501 tagtgagaca attatttaag cctctaacta agaagaatta ttcggagtt gatgatgaag
 1561 aacctatgga gttagattat ccataaaacg aacatgaaaa ttattctctt cctgacattg
 1621 attgtattta catctgcga gctatatcac tatcaggagt gtgttagagg tacgactgta
 1681 ctactaaaag aaccttgccc atcagcaaca tacgagggca attcaccatt tcacctctt
 1741 gctgacaata aatttgact aacttgact agcacacact ttgcttttgc ttgtgctgac
 1801 g

FIGURE 20

1 tctgtgtagc tgtcgtcgg ctgcatgcct agtgcaccta cgcagtataa acaataataa
 61 attttactgt cgttgacaag aaacgagtaa ctctccctc ttctgcagac tgcctacggt
 121 ttctccgtg ttgcagtcga tcatcagcat acctagggtt cgtccgggtg tgaccgaaag
 181 gtaagatgga gagccttgtt cttgggtgca acgagaaaac acacgtccaa ctacgtttgc
 241 ctgtccttca ggtagagac gtgctagtgc gtggcttcgg ggactctgtg gaagaggccc
 301 tatcggaggc acgtgaacac ctcaaaaatg gcactgtgg tctagtagag ctggaaaaag
 361 gcgtactgcc ccagcttga cagccctatg tgttcatlta acgttctgat gccttaagca
 421 ccaatcacgg ccacaaggic gttagctgg ttgcagaaat ggacggcalt cagtacggtc
 481 gtagcggat aacaciggga gtactcgtgc cacatgtggg cgaacccca attgcatacc
 541 gcaatgttct tcttcglaag aacggtaata agggagccgg tggicatagc tatggcatcg
 601 atctaaagtc ttatgactta ggtgacgagc ttggcactga tccattgaa gattatgaac
 661 aaaactggaa cactaagcat ggacgtgtg cactccgtga actcactcgt gagtcaatg
 721 gaggtgtagt cactcgtat gtcgacaaca atttctgtgg ccagatggg taccctcttg
 781 attgcatcaa agatttcta gcacgcgcgg gcaagtcaat gtgcactct tccgaacaac
 841 ttgattacat cgagtcgaag agaggtgtct actgctgccg tgacctagag catgaaattg
 901 cctgggtcac tgagcgtct gataagagct gcgagacca gacacccttc gaaattaaga
 961 gtgccaagaa atttgacact ttcaaagggg aatgccaaa gtttgtgtt cctcttaact
 1021 caaaagtc aaagtcac ccacgtgtg aaaagaaaa gactgagggt tcatggggc
 1081 gtatcgtc tgtgtacct gtgcactc cacaggagt taacaatat cacttgtcta
 1141 ccttgatgaa atgtaatcat tgcgatgaag ttcatggca gacgtgcgac ttctgaaag
 1201 ccacttgtga acattgtggc actgaaaatt tagttattga aggacctact acatgtgggt
 1261 acctacctac taatgtgta gtgaaatgc catgtcctgc ctgtcaagac ccagagattg
 1321 gacctgagca tagtgttga gattatcaca accactcaa catlgaact cgactccgca
 1381 agggaggtag gactagatgt ttggaggct gtgtgttgc ctatgttggc tgctataata
 1441 agcgtgccta ctgggttct cgtgctagt ctgatattg ctacggccat actggcatta
 1501 ctggtgacaa tgggagacc ttgaatgagg atctcctga gatactgagt cgtgaacgtg
 1561 ttaacattaa catgttggc gattttcatt tgaatgaaga ggttgccatc attttggcat
 1621 ctctctctgc ttctacaagt gcctttattg aactataaa gactcttgat tacaagctt
 1681 tcaaacat tgttagtcc tgcggt

FIGURE 21 (A)

1 agtgttttat tagcacttca acagcttgaa gtcaaattca atgcaccagc acttcaagag
 61 gcttattata gagcccgctc tggatgatgct gctaactttt gtgcactcat actcgcttac
 121 agtaataaaa cgttggcga gcttggatgat gtcagagaaa ctatgacca tcttctacag
 181 catgctaatt tggaaactgc aaagcgagtt cttaatgtgg tgtgtaaaca ttgtggcag
 241 aaaactacta ccttaacggg tgtagaagct gtgatgtata tgggtactct atcttatgat
 301 aatcttaaga cagggtgttc cattccatgt gtgtgtggc gtgatgtac acaatatcta
 361 gtacaacaag agtcttctt tgttatgatg tctgcaccac ctgctgagta taaattacag
 421 caaggatcat tcttatgtgc gaatgagtag actggtaact atcagtgtgg tcattacact
 481 catataactg ctaaggagac cctctatcgt attgacggag ctacacttac aaagatgtca
 541 gagtacaag gaccagtgc tgaatgtttc tacaaggaaa catcttacac tacaaccatc
 601 aagcctgtgt cgtataaact cgaaggagtt acttacacag agattgaacc aaaattggat
 661 gggtattata aaaaggataa tgccttactat acagagcagc ctatagacct tgtaccaact
 721 caaccattac caaatgcgag ttttgataat ttcaaactca catgttctaa cacaaaattt
 781 gctgatgatt taaatcaaat gacaggcttc acaaagccag ctacacgaga gctatctgtc
 841 acattcttcc cagacttgaa tggcgatgta tgggctattg actatagaca ctattcagcg
 901 agtttcaaga aagggtgtaa attactgcat aagccaattg ttggcacat taaccaggct
 961 acaaccaaga caactgtcaa accaaact tgggttttac tttgtcttg gagtacaaag
 1021 ccagtagata ctcaaactt atttgaagt ctggcagtag aagacacaca aggaatggac
 1081 aatcttgctt gtgaagtica acaaccacc tctgaagaag tagtggaaaa tctaccata
 1141 cagaaggaag tcatagagtg tgacgtgaaa actaccgaag ttgtaggcaa tgtcatact
 1201 aaaccatcag atgaagggtg taaagtaaca caagagttag gtcatgagga tcttatggct
 1261 gcttatgttg aaacacaag cattaccatt aagaaccta atgagcttc actagccta
 1321 ggttataaaa caattgccac tcatggattt gctgcaatta atagtgtcc ttggagtaa
 1381 atttggctt atgtcaaacc attcttagga caagcagcaa ttacaacac aaatgctgct
 1441 aagagattag cacaacgtgt gtttaacaat tatatgctt atgtgttac attattgtc
 1501 caattgtgta ctittactaa aagtaccaat tctagaatta gagcttact acctacaact
 1561 attgctaaaa atagtgtta gagtgttgc aaattatgt ttgatgccg cattaattat
 1621 gtgaagtcac ccaaatttc taaattgtc acaatcgcta tgggctatt gttgtaagt
 1681 attgcttag gttcttaat ctgtgtaact gctgctttg gtgtactct atctaattt
 1741 ggtgctcctt ctattgtaa tggcgtaga gaattgtatc ttaattcgt taacgttact
 1801 actatggatt tctgtgaagg tcttttct tgcagcattt gtttaagtgg attagactcc
 1861 ctgtattctt atccagctct tgaaccatt caggtagca tttcatcgta caagctagac
 1921 ttgacaattt taggtctggc cgctgagtg gtttggcat atatgttgtt cacaaaattc
 1981 tttatttat taggtcttc agctataatg cagggttct ttgctattt tctagtcat
 2041 ttcatcgca attctggct catgtgttt atcattagta ttgtacaaat ggcaccggt
 2101 tctgcaatgg ttaggatgta catcttctt gcttcttct actacatag gaagagctat
 2161 gttcatatca tggatgggtg cactcttcg acttgcata tgtgtataa gcgcaatcgt
 2221 gccacacgc ttgagtgtac aactattgtt aatggcatga agagatctt ctatgtctat
 2281 gcaaatggag gccgtggctt ctgcaagact cacaattgga attgtctcaa ttgtgacaca
 2341 tttgcactg gtagtacatt cattagtgt gaagtgtc gtgattgtc actccagttt
 2401 aaaagacca tcaacctac tgaccagta tcttatattg ttgatagtgt tgcgtgaaa
 2461 aatggcgcg tcaacctta cttgacaag gctgggtcaa agacctatga gagacatccg
 2521 ctctccatt ttgtcaatt agacaattg agagctaaca acactaaagg ttcactgcct
 2581 altaatgtca tagttttga tggcaagtcc aaatgcgac agtctgttc taagtctgt
 2641 tctgttact acagtacgt gatgtgcaa cctattctgt tcttgacca agctcttga
 2701 tcagcgttg gagatagtag tgaagtctc gtttaagtgt ttgatgtta tctgacacc
 2761 ttctagcaa ctittagtgt tcttatggaa aaactaaagg cactgttgc tacagctac
 2821 agcgagttag caaagggtgt agcttagat ggtgtcctt ctacattcgt gtcagctgcc
 2881 cgacaagggt ttgtgtatc cgtatgtgac acaaggatg ttattgaatg tctcaactt
 2941 tcacatcact ctgacttaga agtgacaggt gacagtgtg acaattcat gctcacctat
 3001 aataaggttg aaacatgac gccagagat ctggcgcat gtattgactg taatgcaagg

FIGURE 21 (B)

3061 cataatcatg cccaagtagc aaaaagtcac aatgtttcac tcatctggaa tglaaaagac
 3121 tacatgtctt tatctgaaca gctgcgtaaa caaatcgtg gtgctgcaa gaagaacaac
 3181 atacccttta gactaacttg tgctacaact agacagggtg tcaatgtcat aactactaaa
 3241 atctcactca aggggtgtaa gattgttagt actgtttta aacttatgct taaggccaca
 3301 ttattgtcgc ttctgtcgc attgtttgt tataatcgta tgccaglaa tacattgtca
 3361 atccatgatg gttacacaaa tgaatcatt ggttacaaag ccattcagga tgggtgcact
 3421 cgtgacatca ttctactga tgattgttt gcaataaac atgctgggtt tgacgcatgg
 3481 tttagccagc gtgggtggtc atacaaaaat gacaaaagct gccctgtagt agctgctatc
 3541 attacaagag agattgttt catagtgcct ggctaccgg gtactgtgct gagagcaatc
 3601 aatggtagct tcttgcat tctacctgt gtttttagt ctgttgcaa cattgtctac
 3661 acacctcca aactcattga gtatagtat ttgtacct ctgcttgcgt tctgtctgt
 3721 gagtgtacaa ttttaagga tgctatggc aaacctgtgc catattgta tgacactaat
 3781 ttgctagagg gtcttattc ttatagttag ctctgccag acactcgta tggcttatg
 3841 gatggttcca tcatagatt tcctaactac tacctggagg gttctgttag agtagtaaca
 3901 actttgatg ctgagtactg tagacatggt acatgcgaaa ggtcagaagt aggtatttgc
 3961 ctatctacca gtggtagatg gttcttaat aatgagcatt acagagctct atcaggagtt
 4021 ttctgtggtg ttgatcgat gaatctcata gtaacatct ttactctct tgtgcaacct
 4081 gtgggtgctt tagatgtgc tgcctcagta gtggctgggt gtattattgc catattgggtg
 4141 actgtgtcgt cctactactt tatgaaatc agacgtgttt ttggtgagta caacctggt
 4201 gttgtcgtca atgcacttt gttttgatg tcttccacta tactctgtct ggtaccagct
 4261 tacagcttcc tgcggggagt ctactcagtc ttctactgt acttgacatt ctatttcacc
 4321 aatgatgttt catcttggc tcaccttcaa tggtttgcca tgtttctcc taltgtcct
 4381 ttttgataa cagcaatcta tgtattctg atttcttga agcactgcca ttggtcttt
 4441 aacaactatc ttaggaaaag agtcatttt aatggagta catttagtac ctctgaggag
 4501 gctgcttgt gtacctttt gctcaacaag gaaatgtacc taaaattgcg tagcgagaca
 4561 ctgttgccac ttacacagta taacaggat ctgtcttat ataacaagta caagtattc
 4621 agtggagcct tagatactac cagctatcgt gaagcagctt gctgccact agcaaaggct
 4681 cttaatgact ttgcaactc aggtgtgat gttcttacc aaccaccaca gacatcaatc
 4741 acttctgtg ttctgcagag tggttttagg aaaatggcat tcccgtcagg caaagttaa
 4801 ggggtcatgg tacaagtaac ctgtggaact acaactcta atggatttg gtggatgac
 4861 acagtatact gtccaagaca tgcatttgc acagcagaag acatgctaa tcctaactat
 4921 gaagatctgc tcatcgcaa atccaacct agcttcttg ttccaggctgg caatgttcaa
 4981 ctctgtgta ttggccattc tatgcaaat tgcctgcta ggcttaagt tgatactct
 5041 aaccttaaga caccaagta taaattgtc cgtatccaac ctggtcaaac atttcagtt
 5101 ctatcatgct acaatgggt accatctggt gttatcagt gtgccatgag acctaatcat
 5161 accattaaag gttcttctc taatggatca tgggttagt ttggtttta cattgattat
 5221 gattgcgtgt ctcttctga tatcatcat atggagctc caacaggagt acagctggt
 5281 accgacttag aaggtaaatt ctatgtcca ttgttgaca gacaaactgc acaggctgca
 5341 ggtacagaca caaccataac attaatggt ttggcatggc tgtatgtgc tttatcaat
 5401 ggtgataggt ggtttctta tagattcacc actacttga atgacttaa cctgttgca
 5461 atgaagtaca actatgaacc ttgacacaa gatcatgtt acatattggg acctcttct
 5521 gctcaaacag gaattgccg cttagatat tgtctgtct tgaagagct gctgcagaat
 5581 ggtatgaatg gtctactat ccttggtagc actattttag aagatgagtt tacaccatt
 5641 gatgttga gacaatgctc tgggttacc ttccaagga agttcaagaa aattgtaag
 5701 ggcactcacc attggatgct ttaacttcc ttgacatcac tattgattct tttcaaagt
 5761 acacagtgt cactgtttt ctgtttac gagaatgct tcttgccatt tactctgtg
 5821 attatggcaa ttgtcgtatg tgctatgtc ctgttaagc ataagcagc attctgtgc
 5881 ttgttctgt tacttctct tgcaacagtt gcttactta atatggctc catgctgtc
 5941 agctgggtga tgcgtatcat gacatggctt gaattggctg acactagctt gctgtgtat
 6001 aggcctaagg attgtgtat gtatgctca gctttgatt tgcctattct calgacagct
 6061 cgactgttt atgatgatg tgtagacgt gtttgacac tgaatgatt cattacatt

FIGURE 21 (C)

6121 gtttacaag tctactatgg taatgcttta gatcaagcta ttccatgtg ggccttagtt
 6181 atttctgtaa cctctaacta ttctgggtgc gttacgacta tcatgtttt agctagagct
 6241 atagtgttg tgtgtgtga gtattatcca ttgtattta ttactggcaa caccttacag
 6301 tgtatcatgc ttgtttattg ttcttaggc tattgtgct gctgctact tggcctttc
 6361 tgtttactca accgttacti caggcttact cttgggtgtt atgactactt ggtctctaca
 6421 caagaattta ggtatatgaa ctcccagggg ctttgcctc ctaagagtag tattgatgct
 6481 ttcaagctta acatttaagt gttgggtatt ggaggtaaac calgtatcaa ggttgctact
 6541 gtacagtcta aaatgtctga cgtaaagtgc acatctgtgg tactgcttc gggtcttcaa
 6601 caacttagag tagagtcac ttctaattg tgggcacaat gtgtacaact ccacaatgat
 6661 attcttctg caaaagacac aactgaagct ttcgagaaga tggtttctt ttgtctgtt
 6721 ttgctatcca tgcagggtgc tgtagacatt aatagggtgt gcgaggaaat gctcgataac
 6781 cgtgctactc ttacggctat tgcctcagaa tttagtctt taccatcata tggcgttat
 6841 gccactgccc aggaggccta tgagcaggct gtagctaag gtgattctga agtcgttctc
 6901 aaaaagttaa agaaatctt gaatgtggct aaatctgagt ttgaccgtga tgcgtccatg
 6961 caacgcaagt tggaaaagat ggagatcag gctatgacc aaatgtacaa acaggcaaga
 7021 tctgaggaca agagggccca agtcgttct gctatgcaaa caatgctctt cactatgcta
 7081 aggaagcttg ataagtatgc acttaacaac attatcaaca atgcgcgtga tggttgtgtt
 7141 ccactcaaca tcataccatt gactacagca gccaaactca tggttgtgtt ccctgattat
 7201 ggtacactaca agaacacttg tgatggtaac acctttacat atgcatctgc actctgggaa
 7261 atccagcaag ttgttgatgc gtagtagcaag attgttcaac ttagtgaat taacatggac
 7321 aattcaccaa atttggcttg gcctcttatt gttacagtc taagagccaa ctacgtgtt
 7381 aaactacaga ataataaact gagtccagta gcactacgac agatgtcctg tgcggctggt
 7441 accacacaaa cagcttgatc tgatgacaat gcactgcct actatacaaa ttgaaggga
 7501 ggtaggtttg tgctggcatt actatcagac caccaagatc tcaaatgggc tagattccct
 7561 aagagtgtat gtacaggtaac aatttacaca gaactggaac cacctgttag gtttgttaca
 7621 gacacaccaa aaggccctaa agtgaaatac ttgtacttca tcaaggctt aaacaaccta
 7681 aatagaggta tgggtctggg cagtttagct gctacagtac gtcttcaggc tggaaatgct
 7741 acagaagtac ctgccaattc aactgtgctt tcctctgtg cttttgcagt agaccctgct
 7801 aaagcatata aggattacct agcaagtggg ggacaaccaa tcaaccaatg tgtgaagatg
 7861 ttgtgtacac aacttggtac aggacaggca attactgtaa caccagaagc taacatggac
 7921 caagagtcct ttgggtgggc ttcatgtgt ctgtattga gatgccacat tgaccatcca
 7981 aatcctaag gattctgtga ctgaaagggt aagtacgtcc aaalacctac cacttgtgct
 8041 aatgaccag tgggttttac acttagaacc acagtctgta ccgtctgcgg aatgtggaaa
 8101 ggttatggct gtagttgtga ccaactccgc gaacccttga tgcagtctgc ggtatcatca
 8161 acgtttttaa acgggtttgc ggtgtaagt cagcccgctt tacaccgtgc ggcacaggca
 8221 ctagtactga tgcgtctac agggcttttg atatttcaa cgaanaagtt gctggttttg
 8281 caaagttcct aaaaactaat tgctgtcgt tccaggagaa ggtgaggaa ggcaatttat
 8341 tagactctta cttttagtt aagaggcata ctatgtctaa ctaccaacat gaagagacta
 8401 ttataactt gggttaagat tgcagcgg ttgctgtcca tgacttttc aagtttagag
 8461 tagatggtga catggtacca catatcac gtcagcgtct aactaaatac acaatggctg
 8521 atttagtcta tgcctacgt cattttgatg agggtaattg tgataatta aaagaaatac
 8581 tgcacata caattgctgt gatgatgatt atttcaataa gaaggattgg tatgacttcg
 8641 tagagaatcc tgactctta cgcgtatag ctaacttagg tgagcgtgta cgcctatcat
 8701 tattaaagac tgtacaattc tgcgatgcta tgcgtgatgc aggcattgta ggcgtactga
 8761 cattagataa tcaggatctt aatgggaact ggtacgattt cgggtatttc gtacaagtag
 8821 caccaggctg cggagtctct atttggatt catattactc attgtgatg cccatcctca
 8881 ctttgactag ggcattggct gctgagtcct atatggatgc tgatctgca aaaccactta
 8941 ttaagtggga ttgtgaaa tatgattta cgaagagag actttgtctc ttgaccgtt
 9001 attttaata ttgggaccag acataaccac ccaattgtat taactgttg gatgataggt
 9061 gtatcttca ttgtgcaaac tttaagtgt tattttctac tgtgttcca cctacaagtt
 9121 ttggaccact agtaagaaaa atattgtag atgggttcc ttttgtgtt tcaactggat
 9181 accatttctg tgagtttaga gtcgtacata atcaggatgt aaacttcat agctcgcgtc

FIGURE 21 (D)

9241 tcagtttcaa ggaactttta gtgtatgctg ctgatccagc tatgcatgca gcttctggca
 9301 atttattgct agataaacgc actacatgct tticagtagc tgcactaaca aacaatgttg
 9361 cttttcaaac tgtcaaaccc ggtaatttta ataaagactt ttatgacttt gctgtgtcta
 9421 aagggtttct taaggaagga agttctgttg aactaaaaca ctcttctt gctcaggatg
 9481 gcaacgctgc tatcagtgtat tatgactatt atcgttataa tctgccaaaca atgtgtgata
 9541 tcagacaact cctattcgtta gtggaagtig ttgataaata ctttgattgt tacgatggtg
 9601 gctgtattaa tgccaaccaa gtaatcgta acaatctgga taaatcagct ggtttcccat
 9661 ttaataaatg gggtaaggct agactttatt atgactcaat gagttatgag gatcaagatg
 9721 cacttttcgc gtatactaag cgtaatgtca tccctactat aactcaaatg aatcttaagt
 9781 atgccattag tgcaaagaat agagctcgca ccgtagctgg tgtctctatc tgtagtacta
 9841 tgacaaatag acagtttcat cagaaattat tgaagtcaat agccgccact agaggagcta
 9901 ctgtggtaat tggaacaagc aagttttacg gtggctggca taatatgta aaaactgttt
 9961 acagtgatgt agaaactcca cacttatgg gtggggatta tccaaaatgt gacagagcca
 10021 tgcctaacat gcttaggata atggcctctc ttgttcttgc tcgcaaacat aacacttgct
 10081 gtaacttacc acaccgtttc tacagggttag ctaacgagtg tgcgcaagta ttaagtgaga
 10141 tggtcagtgt tggcggctca ctatatgta aaccagggtgg aacatcatcc ggtgatgcta
 10201 caactgctta tgctaatagt gtctttaaca ttgtcaagc tgttacagcc aatgtaaatg
 10261 cacttctttc aactgatgtt aataagatag ctgacaagta tgtccgcaat ctacaacaca
 10321 ggctctatga gtgtctctat agaaataggg atgttgatca tgaattcgtg gatgagtttt
 10381 acgtttacct gcgtaaacat ttctccatga tgattctttc tgatgatgcc gttgtgtgct
 10441 ataacagtaa ctatcggtct caagggttag tagctagcat taagaacttt aaggcagttc
 10501 ttattatca aaataatgtg ttcatgtctg aggcaaatg ttggac

FIGURE 22

1 gtaccticat gaaggcacc aaactgctgc atttagagac gtacttgttg ttttaataa
 61 acgaacaaat taaaatgtct gataatggac cccaatcaaa ccaacgtagt gcccccgca
 121 ttacatttgg tggaccaca gattcaactg acaataacca gaatggagga cgcaatgggg
 181 caaggccaaa acagcgccga cccaaggtt tacccaataa tactgcgtct tggttcacag
 241 ctctcactca gcatggcaag gaggaactta gattccctcg aggccagggc gtccaatca
 301 acaccaatag tggtcagat gaccaaattg gctactaccg aagagctacc cgacgagttc
 361 gtgggtggga cggcaaaatg aaagagctca gccccagatg gtacttctat tacctaggaa
 421 ctggcccaga agcttcactt ccctacggcg ctaacaaaga aggcacgta tgggttgcaa
 481 ctgagggagc cttgaatata ccaaagacc acattggcac ccgcaatcct aataacaatg
 541 ctgccaccgt gctacaactt cctcaaggaa caacattgcc aaaaggcttc tacgcagagg
 601 gaagcagagg cggcagtcga gcctcttctc gctcctcacc acgtagtcgc ggtaattcaa
 661 gaaattcaac tctggcagc agtaggggaa attcctctgc tcgaatggct agcggaggtg
 721 gtgaaactgc cctcgcgcta ttgctgctag acagattgaa ccagcttgag agcaaagttt
 781 ctggtaaagg ccaacaacaa caaggccaaa ctgtcactaa gaaatctgct gctgaggcat
 841 ctaaaaagcc tcgcaaaaaa cgtactgcca caaacagta caacgtcact caagcatttg
 901 ggagacgttg tccagaacaa acccaaggaa atttcgggga ccaagaccta atcagacaag
 961 gaactgatta caaacattgg ccgcaaatg cacaattgc tccaagtgc tctgcattct
 1021 ttggaatgc acgcattggc atggaagtca caccttcggg aacatggctg acttatcatg
 1081 gagccattaa attggatgac aaagatccac aattcaaaga caacgtcata ctgctgaaca
 1141 agcacattga cgcatacaaa acattccac caacagagcc taaaaggac aaaaagaaaa
 1201 agactgatga agctcagcct ttgccgcaga gacaaaagaa gcagcccact gtgactcttc
 1261 ttctgcggc tgacatggat gatttctcca gacaacttca aaattccatg agtggagctt
 1321 ctgctgattc aactcaggca taaacactca tgatgaccac acaaggcaga tgggctatgt
 1381 aaacgttttc gcaattccgt ttacgataca tagtctactc ttgtgcagaa tgaattctcg
 1441 taactaaaca gcacaagtag gtttagttaa ctltaatctc acatagcaat cttaataca
 1501 tgtgtaacat tagggaggac ttgaaagagc caccacattt tcatcgaggc cagcgaggat
 1561 acgatcgagg gtacagtga taatgctagg gagagctgcc tatatggaag agccctaatag

FIGURE 23

MSDNGPQSNQRSAPRITFGGPTDSTDNNQNGGRNGARPKQRRPQGLPNNTASWFTALTQHGKEEL
RFPRGQGVPIINTNSGPDDQIGYYRRATRRVRGGDGKMKELSPRWYFYLLGTGPEASLPYGANKEG
IVWVATEGALNTPKDHIGTRNPNNNAATVLQLPQGTTLPKGFYAEGSRGGSQASSRSSSRSGNS
RNSTPGSSRGNSPARMASGGGETALALLLLDRLNQLESKVSGKGQQQQGQTVTKKSAAEASKKPR
QKRTATKQYNVTQAFGRRGPEQTQGNFGDQDLIRQGTDYKHWPQIAQFAPSASAFFGMSRIGMEV
TPSGTWLTYHGAIKLDDKDPQFKDNVILLNKHIDAYKTFPPTPEPKKDKKKKTDEAQPLPQRQKKQ
PTVTLLPAADMDDFSRQLQNSMSGASADSTQA

Figure 24

MSDNGPQSNQRSAPRITFGGPTDSTDNNQNGGRNGARPKQRRPQ
GLPNNTASWFTALTQHGKEELRFPRGQGVPIINTNSGPDDQIGYYRRATRRVRGGDGKM
KELSPRWYFYYLGTGPEASLPYGANKEGIVWVATEGALNTPKDHIGTRNPNNNAATVL
QLPQGTTLPKGIFYAEGSRGGSQASSRSSSRGNSRNSTPGSSRGNSPARMASGGGET
ALALLLLDRLNQLESKVSGKGQQQQGQTVTKKSAAEASKKPRQKRTATKQYNVTQAFG
RRGPEQTQGNFGDQDLIRQGTDYKHWPQIAQFAPSASAFFGMSRIGMEVTPSGTWLTY
HGAIKLDDKDPQFKDNVILLNKHIDAYKTFPPTEPKDKKKKTDEAQPLPQRQKKQPT
VTLLPAADMDDFSRQLQNSMSGASADSTQA

FIGURE 25

(A)

MSDNGPQSNQRSAPRITFGGPTDSTDNNQNGGRNGARPKQRRPQ
GLPNNTASWFTALTQHGKEELRFPRGQGVPIINTNSGPDDQIGYYRRATRVRGGDGKM
KELSPRWYFYLLGTGPEASLPYGANKEGIVWVATEGALNTPKDHIGTRNPNNNAATVL
QLPQGTTLPGFYAEGSRGGSQASSRSSRSRGNSTPGSSRGNSPARMASGGGET
ALALLLLDRLNQLESKVSQGGQGGQTVTKKSAAEASKKPRQKRTATKQYNVTQAFG
RRGPEQTQGNFGDQDLIRQGTQDYKHWPQIAQFAPSASAFFGMSRIGMEAAPSGTWLTY
HGAIKLDDKDPQFKDNVILLNKHIDAYKTFPPTEPKKDKKKKTDEAQPLPQRQKKQPT
VTLLPAADMDDFSRQLQNSMSGASADSTQA

(B)

MSDNGPQSNQRSAPRITFGGPTDSTDNNQNGGRNGARPKQRRPQ
GLPNNTASWFTALTQHGKEELRFPRGQGVPIINTNSGPDDQIGYYRRATRVRGGDGKM
KELSPRWYFYLLGTGPEASLPYGANKEGIVWVATEGALNTPKDHIGTRNPNNNAATVL
QLPQGTTLPGFYAEGSRGGSQASSRSSRSRGNSTPGSSRGNSPARMASGGGET
ALALLLLDRLNQLESKVSQGGQGGQTVTKKSAAEASKKPRQKRTATKQYNVTQAFG
RRGPEQTQGNFGDQDLIRQGTQDYKHWPQIAQFAPSASAFFGMSRIGMEAAPSGTWLTY
HGAIKLDDKDPQFKDNVILLNKHIDAYKTFPPTEPKKDKKKKTDEAQPLPQRQKKQPT
VTLLPAADMDDFSRQLQNSMSGASADSTQA

FIGURE 26

MSDNGPQSNQRSAPRITFGGPTDSTDNNQNGGRNGARPKQRRPQ
GLPNNTASWFTALTQHGKEELRFPRGQGVPIINTNSGPDDQIGYYRRATRVRGGDGKM
KELSPRWYFYYLGTGPEASLPYGANKEGIVWVATEGALNTPKDHIGTRNPNNAATVL
QLPQGTTLPKGFYAEGSRGGSQASSRSSSRSGNSRNSTPGSSRGNSPARMASGGGET
ALALLLLDRLNQLESKVSGKGQQQQGQTVTKKSAAEASKKPRQKRTATKQYNVTQAFG
RRGPEQTQGNFGDQDLIRQGTDYKHWPQIAQFAPSASAFFGMSRIGMEVTPSGTWLTY
HGAIKLDDKDPQFKDNVILLNKHIDAYKTFPPTPEPKDKKKKTDEAQPLPQRQKKQPT
VTLLPAADMDDFSRQLQNSMSGASADSTQA

FIGURE 27

MFIFLLFLTTLTSGSDLDRCTTFDDVQAPNYTQHTSSMRGVYYPD
EIFRSDTLYLTQDLFLPFYSNVTGFHTINHTEFGNPVIPPFDGIYFAATEKSNVVRGWV
FGSTMNNKSQSVIIINNSTNVVIRACNFELCDNPFFAVSKPMGTQHTMTIFDNAFNCT
FEYISDAFSLDVSEKSGNFKHLREFVFKNKDGFLYVYKGYQPIDVVRDLPSGFNTLKP
IFKLPLGINITNFRAILTAFSPAQDIWGTSAAAYFVGYLKPTTFMLKYDENGITIDAV
DCSQNPPLAELKCSVKSFEIDKGIYQTSNFRVVPSPGDVVRFPNITNLCPFGEVFNATKF
PSVYAWERKKISNCVADYSVLYNSTFFSTFKCYGVSATKLNDLCFSNVYADSFVVKGD
DVRQIAPGQTGVIADYNYKLPDDEFMGCVLAWNTRNIDATSTGNYNKYRYLRHGKLRP
FERDISNVPPSPDGKPCPPALNCYWPLNDYGFYTTTGIGYQPYRVVLSFELLNAPA
TVCGPKLSTDLIKNCVNFNFNGLTGTGVLTPSSKRFQPFQQFGRDVSDFTDSVRDPK
TSEILDISPCSFGGVSVITPGTNASSEVAVLYQDVNCTDVSTAIHADQLTPAWRIYST
GNNVFQTQAGCLIGAHEVDTSYECDIPIGAGICASYHTVSLLRSTSQKSIVAYTMSLG
ADSSIAYSNNTIAIPTNFSISITTEVMPVSMAKTSVDCNMYICGDSTECANLLLQYGS
FCTQLNRALSGIAAEQDRNTREVFAQVKQMYKTPTLKYFGGFNFSQILPDPLKPTKRS
FIEDLLFNKVTLADAGFMKQYGECLGDINARDLICAQKFNGLTVLPPLLTDDMIAAYT
AALVSGTATAGWTFGAGAALQIPFAMQMAYRFNGIGVTQNVLYENQKQIANQFNKAIS
QIQESLTTTSTALGKLQDVVNQNAQALNTLVKQLSSNFGAISSVLNDILSRDKVEAE
VQIDRLITGRLQSLQTYVTQQLIRAAEIRASANLAATKMSECVLGQSKRVDFCGKGYH
LMSFPQAAPHGVVFLHVTVVPSQERNFTTAPAIHEGKAYFPREGVVFVNGTSWFITQ
RNFFSPQIIITDNTFVSGNCDVVIGIINNTVYDPLQPELDSFKEELDKYFKNHTSPDV
DLGDISGINASVVNIQKEIDRLNEVAKNLNESLIDLQELGKYEQYIKWPWYVWLGFIA
GLIAIVMTILLCCMTSCCSCLKGACSCGSCCKFDEDDSEPVLKGVKLHYT

FIGURE 28

MFIFLLFLTSLTSGSDLDRCTTFDDVQAPNYTQHTSSMRGVYYPD
EIFRSDTLYLTDQLFLPFYSNVTGFHTINHTFGNPVIPPFDGIYFAATEKSNVVRGWV
FGSTMNNKSQSVIIINNSTNVVIRACNFELCDNPFFAVSKPMGTQHTMIFDNAFNCT
FEYISDAFSLDVSEKSGNFKHLREFVFKNKDGLYVYKGYQPIDVVRDLPSGFNTLKP
IFKLPLGINITNFRAILTAFSPAQDIWGTSAAYFVGYLKPTTFMLKYDENGITIDAV
DCSQNPLAELKCSVKSFEDKGIYQTSNFRVVPSPGDVVRFPNITNLCPFGEVFNATKF
PSVYAWERKKISNCVADYSVLNSTFFSTFKCYGVSATKLNDLCFSNVYADSFVVKGD
DVRQIAPGQTGVIADYNYKLPDDFMGCVLAWNTRNIDATSTGNVNYKYRYLRHGKLRP
FERDISNVPFSPDGKPCPTPPALNCYWPLNDYGFYTTTGIGYQPYRVVLSFELLNAPA
TVCGPKLSTDLIKNQCVNFNFNGLTGTGVLTPSSKRFQPFQQFGRDVSDFDTSVRDPK
TSEILDISPACFGGVSVITPGTNASSEVAVLYQDVNCTDVSTAIHADQLTPAWRIYST
GNNVFQTQAGCLIGAHEVDTSYECDIPIGAGICASYHTVSLLRSTSQKSIVAYTMSLG
ADSSIAYSNNTIAIPTNFSISITTEVMPVSMAKTSVDCNMYICGDSTECANLLLQYGS
FCTQLNRALSGIAAEQDRNTREVFAQVKQMYKTPTLKYFGGFNFSQILPDPLKPTKRS
FIEDLLFNKVTLADAGFMKQYGECLGDINARDLICAQKFNGLTVLPPLLTDDMIAAYT
AALVSGTATAGWTFGAGAAALQIPFAMQMAYRFNGIGVTQNVLYENQKQIANQFNKAIS
QIQESLTTTSTALGKLQDVVNQNAQALNTLVKQLSSNFGAISSVLNDILSRDKVEAE
VQIDRLITGRQLQSLQTYVTQQLIRAAEIRASANLAATKMSECVLGQSKRVDFCGKGYH
LMSFPQAAPHGVVFLHVTYVPSQERNFTTAPAICHEGKAYFPREGVVFVNGTSWFITQ
RNFFSPQIIITDNTFVSGNCDVVIGIINNTVYDPLQPELDSFKEELDKYFKNHTSPDV
DLGDISGINASVVNIQKEIDRLNEVAKNLNESLIDLQELGKYEQYIKWPWYVWLGFIA
GLIAIVMTILLCCMTSCCCLKGACSCGSCCKFDEDDSEPVLKGVKLHYT

FIGURE 29

MFIFLLFLTTLTSGSDLDRCTTFDDVQAPNYTQHTSSMRGVYYPD
EIFRSDTLYLTLQDLFLPFYSNVTGFHTINHTFGNPVIPFKDGIYFAATEKSNVVRGWV
FGSTMNNKSQSVIIISNSTNVVIRACNFELCDNPFFAVSKPMGTQTHMTIFDNAFNCT
FEYISDAFSLDVSEKSGNFKHLREFVFKNKDGS LYVYKGYQPIDVVRDLPSGFNTLKP
IFKLPLGINITNFRAILTAFSPAQDIWGTSAAYFVG YLKPTTFMLKYDENG TITDAV
DCSQNPLAELKCSVKSF EIDKGIYQTSNFRVVP SGDVVRFPNITNLCPFGEVFNATKF
PSVYAWERKKISNCVADYSVLNSTFFSTFKCYGVSATKLN DLCF SNVYADSFVVKGD
DVRQIAPGQTGVIADYNYKLPDDFMGCVLAWNTGNIDATSTGNYDYKYRYLRHGKLRP
FERDISNVPFSPDGKPCTPPALNCYWPLNDYGFYTTTGIGYQPYRVVVL SFELLNAPA
TVCGPKLSTD LIKNQCVNFNFNGLTGTGVLT PSSKRFQPFQQFGRDVSDFTDSVRDPK
TSEILDISP CSFGGVSVITPGTNASSEVAVLYQDVNCTDVSTAIHADQLTPAWRIYST
GNNVFQTQAGCLIGA EHVDTSYECDIPIGAGICASYHTVSLLRSTSQKSIVAYTMSLG
ADSSIAYSNN TIAIPTNFSISITTEVMPVSMAKTSVDCNMYICGDSTECANLLLQYGS
FCTQLNRALSGIAAEQDRNTREVFAQVKQMYKTPTLKYFGGFNFSQILPDPLKPTKRS
FIEDLPFNKVT LADAGFMKQYGECLGDINARDLICAQKFNGLTVLPPLLTD DMIAAYT
AALVSGTATAGWTFGAGAALQIPFAMQMAYRFNGIGVTQNVLYENQKQIANQFNKAIS
QIQESLTTTSTALGKLQDVVNQNAQALNTLVKQLSSNF GAISSVLNDILSR LDKVEAE
VQIDRLITGRLQSLQTYVTQQLIRAAGIRASANLAATKMSECVLGQSKRVDFCGKGYH
LMSFPQAAPHGVVFLHVTYVPSQERNFTTAPAI CHEGKAYFPREGVVFVNGTSWFITQ
RNFFSPQIITTDNTFVSGNCDVVIGI INNTVYDPLQPELDSFKEELDKYFKNHTSPDV
DLGDISGINASVVNIQKEIDRLNEVAKNLNESLIDLQELGKYEQYIKWPWYVWLGFIA
GLIAIVMTIILLCCMTSCC SCLKGACSCGSCCKFDEDDSEPVLKGVKLHYT

FIGURE 30

(A)

MADNGTITVEELKQELLEQWNLVIGFLFLAWIMLLQFAYSNNRNF
LYIIKLVFLWLLWPVTLACFVLAAYRINWVTGGIAIAMACIVGLMWLSYFVASFRLF
ARTRSMWSFNPETNILLNVPLRGITVTRPLMESELVIGAVIIRGHLMAGHPLGRCDI
KDLPEITVATSRTLSTYYKLGASQRVGTDSGFAAYNRYRIGNYKLNTDHAGSNDNIAL
LVQ

(B)

MADNGTITVEELKQELLEQWNLVIGFLFLAWIMLLQFAYSNNRNF
LYIIKLVFLWLLWPVTLACFVLAAYRINWVTGGIAIAMACIVGLMWLSYFVASFRLF
ARTRSMWSFNPETNILLNVPLRGITVTRPLMESELVIGAVIIRGHLMAGHSLGRCDI
KDLPEITVATSRTLSTYYKLGASQRVGTDSGFAAYNRYRIGNYKLNTDHAGSNDNIAL
LVQ

(C)

MADNGTITVEELKQELLEQWNLVIGFLFLAWIMLLQFAYSNNRNF
LYIIKLVFLWLLWPVTLACFVLAAYRINWVTGGIAIAMACIVGLMWLSYFVASFRLF
ARTRSMWSFNPETNILPNVPLRGITVTRPLMESELVIGAVIIRGHLMAGHSLGRCDI
KDLPEITVATSRTLSTYYKLGASQRVGTDSGFAAYNRYRIGNYKLNTDHAGSNDNIAL
LVQ

(D)

MADNGTITVEELKQELLEQWNLVIGFLFLAWIMLLQFAYSNNRNF
LYIIKLVFLWLLWPVTLACFVLAAYRINWVTGGIAIAMACIVGLMWLSYFVASFRLF
ARTRSMWSFNPETNILPNVPLRGITVTRPLMESELVIGAVIIRGHLMAGHSLGRCDI
KDLPEITVATSRTLSTYYKLGASQRVGTDSGFAAYNRYRIGNYKLNTDHAGSNDNIAL
LVQ

FIGURE 31

(A)

MYSFVSEETGTLIVNSVLLFLAFVVFLVTLAILTALRLCAYCC
NIVNVSLVKPTVYVYSRVKNLNSSEGVPDLLV

(B)

MYSFVSEETGTLIVNSVLLFLAFVVFLVTLAILTALRLCAYCC
NIVNVSLVKPTVYVYSRVKNLNSSEGVPDLLV

(C)

MYSFVSEETGTLIVNSVLLFLAFVVFLVTLAILTALRLCAYCC
NIVNVSLVKPTVYVYSRVKNLNSSEGVPDLLV

(D)

MYSFVSEETGTLIVNSVLLFLAFVVFLVTLAILTALRLCAYCC
NIVNVSLVKPTVYVYSRVKNLNSSEGVPDLLV

(E)

MYSFVSEETGTLIVNSVLLFLAFVVFLVTLAILTALRLCAYCC
NIVNVSLVKPTVYVYSRVKNLNSSEGVPDLLV

FIGURE 32 (A)

MESLVLGVNEKTHVQLSLPVLQVRDVLVRGFGDSVEEALSEARE
HLKNGTCGLVELEKGVLPQLEQPYVFIKRSDALSTNHGHKVVELVAEMDGIQYGRSGI
TLGVLVPHVGETPIAYRNVLLRKNGNKGAGGHSYGIDLKSYDLGDELGTDPIEDYEQN
WNTKHGSGALRELTRELNGGAVTRYVDNNFCGPDGYPLDCIKDFLARAGKSMCTLSEQ
LDYIESKRGVYCCRDHEHEIAWFTERSDKSYEHQTPFEIKSAKKFDTFKGECPKFVFP
LNSKVKVIQPRVEKKKTEGFMGRIRSVYPVASPQECNNMHLSTLMKCNHCDEVSWQTC
DFLKATCEHCGTENLVIEGPTTCGYLPTNAVVKMPCPACQDPEIGPEHSVADYHNHSN
IETRLRKGGRTRCFGGCVFAYVGCYNKRAYWVPRASADIGSGHTGITGDNVETLNEDL
LEILSRERNINIVGDFHLNEEVAILASFSASTSAFIDTIKSLDYKSFKTIVESCGN
YKVTKGKPVKGAWNIGQQRSVLTPLCGFPSQAAGVIRSIFARTLDAANHSIPDLQRAA
VTILDGISEQSLRLVDAMVYTSDLLTNSVIMAYVTGGLVQQTSQWLSNLLGTTVEKL
RPIFEWIEAKLSAGVEFLKDAWEILKFLITGVFDIVKGQIQVASDNIKDCVKCFIDVV
NKALEMCIDQVTIAGAKLRSLNLGEVFIAQSKGLYRQCIRGKEQLQLLMPLKAPKEVT
FLEGDSHDTVLTSEEVLKNGELEALETPVDSFTNGAIVGTPVCVNGLMLEIKDKEQ
YCALSPGLLATNNVFRCLKGGAPIKGVTFGEDTVWEVQGYKNVRITFELDERVDKVLNE
KCSVYTVESGTEVTEFACVVAEAVVKTLQPVSDLLTNMGIDLDEWSVATFYLFDDAGE
ENFSSRMYSFYPPEDEEEEDDAECEEEEEIDETCEHEYGTEDDYQGLPLEFGASAETVR
VEEEEEEDWLDDTTEQSEIEPEPEPTPEEPVNQFTGYLKLTDNVAIKCVDIVKEAQSA
NPMVIVNAANIHLKHGGGVAGALNKATNGAMQKESDDYIKLNGPLTVGGSCLLSGHNL
AKKCLHVVGPNLNAGEDIQLLKAAYENFNSQDILLAPLLSAGIFGAKPLQSLQVCVQT
VRTQVYIAVNDKALYEQVMDYLDNLKPRVEAPKQEEPPNTEDSKTEEKSVVQKPVDV
KPKIKACIDEVTTTLEETKFLTNKLLLFADINGKLYHDSQNMLRGEDMSFLEKDAPYM
VGDVITSGDITCVVIPSCKAGGTTEMLSRALKKVPVDEYITTYPGQGCAGYTL EEAKT
ALKKCKSAFYVLPSEAPNAKEEILGTVSWNLREMLAHAEETRKLMPICMDVRAIMATI
QRKYKGIKIQEGIVDYGVRFFFFYTSKEPVASIIITKLNSLNEPLVTMPIGYVTHGFNLE
EAARCMRSLKAPAVSVSSPDAVTTYNGYLTSSSKTSEEHFVETVSLAGSYRDWSYSG

FIGURE 32 (B)

QRTGELGVEFLKRGDKIVYHTLESPVEFHLDGEVLSLDKLSLLSLREVKTIKVFTTVD
NTNLHTQLVDMSMTYGQQFGPTYLDGADVTKIKPHVNHEGKTFVLPSSDRTLSEAFE
YYHTLDESFLGRYMSALNHTKKWKFPQVGGLTSIKWADNNCYLSSVLLALQQLEVKFN
APALQEAYYRARAGDAANFCALILAYSNKTVGELGDVRETMTHTLLQHANLES AKRVLN
VVCKHCGQKTTTLTGVEAVMYMGTLSDNLKTGVSIPCVCGRDATQYLVQQESSFVMM
SAPPAEYKLQQGTFLCANEYTGNYQCGHYTHITAKETLYRIDGAHLTKMSEYKGPVTD
VFYKETSYYTTTIKPVSYKLDGVTYTEIEPKLDGYKKDNAYYTEQPIDLVPTQPLPNA
SFDNFKLTCSENTKFADDLNQMTGFTKPASRELSVTFFPDLNGDVVAIDYRHYSASFKK
GAKLLHKPIVWHINQATTKTTFKPNTWCLRCLWSTKPVDTSNSFEVLAVEDTQGMNDL
ACESQQPTSEEVVENPTIQKEVIECDVKTTEVVGNVILKPSDEGVKVTQELGHEDLMA
AYVENTSITIKKPNELSLALGLKTIATHGIAAINSVPWSKILAYVKPFLGQAAITTSN
CAKRLAQRVFNNYMPYVFTLLFQLCTFTKSTNSRIRASLPTTIKNSVKSVAKLCLDA
GINYVKSPKFSKLFTIAMWLLLLSICLSGLDCLDSPALETIQVTISSYKLDLTILGLAAEWVL
NSSNVTMTDFCEGSFPCSIICLSGLDCLDSPALETIQVTISSYKLDLTILGLAAEWVL
AYMLFTKFFYLLGLSAIMQVFFGYFASHFISNSWLMWFIISIVQMAPVSAMVRMYIFF
ASFYYIWKSYVHIMDGCTSSTCMMCYKRNRRATRVECTTIVNGMKRSFYVYANGGRGFC
KTHNWNCLNCDTFCTGSTFISDEVARDLSLQFKRPINPTDQSSYIVDSVAVKNGALHL
YFDKAGQKTYERHPLSHFVNLDNLRANNTKGSLPINVIVFDGKSKCDESASKSASVYY
SQLMCQPILLLDQVLVSDVGDSTEVSVKMFDAYVDTFSATFSVPMKCLKALVATAHSE
LAKGVALDGVLSTFVSAARQGVVDTDVDTKDVI ECLKLSHSDLEVTGDSCNNFMLTY
NKVENMTPRDLGACIDCNARHINAQVAKSHNVSLIWNVKDYMSLSEQLRKQIRSAKK
NNIPFRLTCATTRQVVNVITTKISLKGKIVSTCFKLMLKATLLCVLAALVCYIVMPV
HTLSIHDGYTNEIIGYKAIQDGVTRDIISTDDCFANKHAGFDAWFSQRGGSYKNDKSC
PVVAAIITREIGFIVPGLPGTVLRAIN GDFLHFLPRVFSAVGNICYTPSKLIEYS DFA
TSACVLAAECTIFKDAMGKVPYCYDTNLEGSISYSELRPDTRYVLMDGSI IQFPNT
YLEGSRVVTTFDAEYCRHGTCERSEVGICLSTSGRWVLNNEHYRALSGVFCGVDAMN

FIGURE 32 (C)

LIANIFTPLVQPVGALDVSASVVAGGIIAILVTCAAYYFMKFRRVFGEYNHVVAANAL
LFLMSFTILCLVPAYSFLPGVYSVFYLYLTFYFTNDVSFLAHLQWFAMFSPIVPFWIT
AIYVFCISLKHCHWFFNNYLRKRVMFNGVTFSTFEEAALCTFLLNKEMYLKLRSETLL
PLTQYNRYLALYNKYKYFSGALDTTSYREAACCHLAKALNDFSNSGADVLYQPPQTSI
TSAVLQSGFRKMAFPSPGKVEGCMVQVTCGTTTLNGLWLDDTVYCPRHVICTAEDMLNP
NYEDLLIRKSNHSFLVQAGNVQLRVIGHSMQNCLRLKVDTSNPKTPKYKFVRIQPGQ
TFSVLACYNGSPSGVYQCAMRPNHTIKGSFLNGSCGSVGFNIDYDCVSFCYMHMELP
TGVHAGTDLEGKFYGPVDRQTAQAAGTDTTITLNVLAWLYAAVINGDRWFLNRFTTT
LNDFNLVAMKYNIEPLTQDHVDILGPLSAQTGIAVLDMCAALKELLQNGMNGRTILGS
TILEDEFTPFDDVVRQCSGVTFQGKFKKIVKGTHHWMLLTFLTSLILVQSTQWSLFFF
VYENAFLPFTLGIMAIAACAMLLVKHKHAFCLCLLPSLATVAYFNMVYMPASWVMRI
MTWLELADTSLSGYRLKDCVMYASALVLLILMTARTVYDDAARRVWTLMNVITLVYKV
YYGNALDQAISMWALVISVTSNYSGVVTTIMFLARAI VFVCVEYYPLLFITGNTLQCI
MLVYCFLGYCCCCYFGLFCLLNRYFRLTLGVYDYLSTQEFYRMYNSQGLLPPKSSIDA
FKLNIKLLGIGGKPCIKVATVQSKMSDVKCTSVVLLSVLQQLRVESSSKLWAQCVQLH
NDILLAKDTTEAFEKMSVLLSVLLSMQGAVDINRLCEEMLDNRATLQAIASEFSSLPS
YAAAYATAQEAYEQAVANGDSEVVLKKLKKSLNVAKSEFDRDAAMQRKLEKMAHQAMTQ
MYKQARSEDKRAKVTSAMQTMLFTMLRKLNDALNNIINNARDGCVPLNIIPLTTAAK
LMVVVPDYGTYNKTCDGNTFTYASALWEIQQVVDADSKI VQLSEINMDNSPNLAWPLI
VTALRANSVAVKLQNNELSPVALRQMSCAAGTTQTACTDDNALAYYNNSKGGRFVLALL
SDHQDLKWARFPKSDGTGTIYTELEPPCRFVTDTPKGPKVKYLYFIKGLNNLNRMVL
GSLAATVRLQAGNATEVPANSTVLSFCAFAVDPKAYKDYLASGGQPI TNCVKMLCTH
TGTGQAITVTPEANMDQESFGGASCCLYCRCHIDHPNPKGFCDLKGKYVQIPTTCAND
PVGFTLRNTVCTVCGMWKGYGCSCDQLREPLMQSADASTFLNGFAV

FIGURE 33 (A)

MESLVLGVNEKTHVQLSLPVLQVRDVLVRGFGDSVEEALSEARE
HLKNGTCGLVELEKGVLPQLEQPYVFIKRSDALSTNHGHKVVELVAEMDGIQYGRSGI
TLGVLVPHVGETPIAYRNVLLRKNGNKGAGGHSYGIDLKSYDLGDELGTDPIEDYEQN
WNTKHGSGALRELTRELNGGAVTRYVDNNFCGPDGYPLDCIKDFLARAGKSMCTLSEQ
LDYIESKRGVYCCRDHEHEIAWFTERSDKSYEHQTPFEIKSAKKFDTFKGECPKFVFP
LNSKVVIQPRVEKKKTEGFMGRIRSVYPVASPQECNNMHLSTLMKCNHCDEVSWQTC
DFLKATCEHCGTENLVI EGPTTCGYLPNTNAVVKMPCPACQDPEIGPEHSVADYHNHSN
IETRLRKGGRTRCFGGCVFAYVGCYNKRAYWVPRASADIGSGHTGITGDNVETLNEDL
LEILSRERNINIVGDFHLNEEVAILASFSASTSAFIDTIKSLDYKSFKTIVESCNG
YKVTKGKPVKGAWNIGQQRSVLTPLCGFPSQAAGVIRSIFARTLDAANHSIPDLQRAA
VTILDGISEQSLRLVDAMVYTSDLLTNSVIIMAYVTGGLVQOTSQWLSNLLGTTVEKL
RPIFEWIEAKLSAGVEFLKDAWEILKFLITGVFDIVKGQIQVASDNIKDCVKCFIDVV
NKALEMCIDQVTIAGAKLRSLNLGEVFIAQSKGLYRQCIRGKEQLQLLMPLKAPKEVT
FLEGDSHDTVLTSEEVLKNGELEALETPVDSFTNGAIVGTPVCVNGLMLEIKDKEQ
YCALSPGLLATNNVFRCLKGGAPIKGVTFGEDTVWEVQGYKNVRITFELDERVDKVLNE
KCSVYTVESGTEVTEFACVVAEAVVKTLQPVSDLLTNMGIDLDEWSVATFYLFDDAGE
ENFSSRMYSFYPPDEEEEDDAECEEEIIDETCEHEYGTEDDYQGLPLEFGASAETVR
VEEEEEEDWLDDTTEQSEIEPEPEPTPEEPVNQFTGYLKLTDNVAIKCVDIVKEAQSA
NPMVIVNAANIHLKHGGGVAGALNKATNGAMQKESDDYIKLNGPLTVGGSCLLSGHNL
AKKCLHVVGPNLNAGEDIQLLKAAYENFNSQDILLAPLLSAGIFGAKPLQSLQVCVQT
VRTQVYIAVNDKALYEQVMDYLDNLKPRVEAPKQEEPPNTEDSKTEEKSVVQKPVDV
KPKIKACIDEVTTTLEETKFLTNKLLLFADINGKLYHDSQNMLRGEDMSFLEKDAPYM
VGDVITSGDITCVVIPSCKAGGTTEMLSRALKKVPVDEYITTYPGQGCAGYTL EEAKT
ALKKCKSAFYVLPSEAPNAKEEILGTVSWNLREMLAHAEETRKLMPICMDVRAIMATI
QRKYKGIKIQEGIVDYGVRFFFYTSKEPVASIIITKLNSLNEPLVTMPIGYVTHGFNLE
EAARCMRSLKAPAVSVSSPDAVTTYNGYLTSSSKTSEEHFVETVSLAGSYRDWSYSG

FIGURE 33 (B)

QRTELGVEFLKRGDKIVYHTLESPVEFHLDGEVLSLDKLSLLSLREVKTIKVFTTVDD
NTNLHTQLVDMSMTYGQQFGPTYLDGADVTKIKPHVNHEGKTFVLPSSDRTLSEAFE
YYHTLDESFLGRYMSALNHTKKWKFPQVGGLTSIKWADNNCYLSSVLLALQQLEVKFN
APALQEAYYRARAGDAANFCALILAYSNKTVGELGDVRETMTTHLLQHANLES AKRVLN
VVCKHCGQKTTTTLTGVEAVMYMGTLSDNLKTGVSIPCVCGRDATQYLVQQESSFVMM
SAPPAEYKLQQGTFLCANEYTGNYQC GHYTHITAKETLYRIDGAHLTKMSEYKGPVTD
VFYKETS YTTTIKPVSYKLDGVTYTEIEPKLDGYKKDNAYYTEQPIDLVPTQPLPNA
SFDNFKLTC SNTKFADDLNQMTGFTKPASRELSVTFFPD LN GDVVAIDYRHYSASF KK
GAKLLHKPIVWHINQATTKTTFKPNTWCLRCLWSTKPVDTSNSFEVLAVEDTQGM DNL
ACESQQPTSEEVVENPTIQKEVIECDVKTTEVVG NVILKPSDEGVKVTQELGHEDLMA
AYVENTSITIKKPNELSLALGLKTIATHGIAAINSVPWSKILAYVKPFLGQAAITTSN
CAKRLAQRVFNNYMPYVFTLLFQLCTFTKSTNSRIRASLPTTIAKNSVKSVAKLCLDA
GINYVKSPKFSKLFTIAMWLLLLSICLGLSICVTAAGVLLSNFGAPSYCNGVRELYL
NSSNVTTMDFCEGSFPCSICLSGLDSLSDYPAL ETIQVTISSYKLDLTILGLAEWVL
AYMLFTKFFYLLGLSAIMQVFFGYFASHFISNSWLMWFIISIVQMAPVSAMVRMYIFF
ASFYYIWKSYVHIMDGCTSSTCMMCYKRN RATRVECTTIVNGMKRSFYVYANGGRGFC
KTHNWNCLNCDTFCTGSTFISDEVARDLSLQFKRPINPTDQSSYIVDSVAVKNGALHL
YFDKAGQKTYERHPLSHFVNLDNLRANNTKGSLPINVIVFDGKSKCDESASKSASVYY
SQLMCQPILLLDQALVSDVGDSTEVS VKMFDAYVDTF SATFSVPMEKLKALVATAHSE
LAKGVALDGVLSTFVSAARQGVVDTDVDTKDVIECLKLSHHS DLEVTDGSCNNFMLTY
NKVENMTPRDLGACIDCNARHINAQVAKSHNVSLIWNVKDYMSLSEQLRKQIRSAKK
NNIPFRLTCATTRQVVNVITTKISLKGKIVSTCFKLMLKATLLCVLAALVCYIVMPV
HTLSIH DGYTNEIIGYKAIQDGVTRDIISTDDCFANKHAGFDAWFSQRGGSYKNDKSC
PVVAAIITREIGFIVPGLPGTVLRAIN GDFLHFLPRVFSAVGNICYTPSKLIEYS DFA
TSACVLAAECTIFKDAMGKVPYCYDTN LLEGSISYSELRPDTRYVLM DGSIIQFPNT
YLEG SVRVVTTFDAEYCRHGTCERSEVGICLSTSGRWVLNNEHYRALSGVFCGVDAMN

FIGURE 33 (C)

LIANIFTPLVQPVGALDVSASVVAGGIIAILVTCAAYYFMKFRRVFGGEYNHVVAANAL
LFLMSFTILCLVPAYSFLPGVYSVFYLYLTFYFTNDVSFLAHLQWFAMFSPIVPFWIT
AIYVFCISLKHCHWFFNNYLKRKRVMFNGVTFSTFEEAALCTFLLNKEMYLKLRSETLL
PLTQYNRYLALYNKYKYFSGALDTSYREAACCHLAKALNDFSNSGADVLYQPPQTSI
TSAVLQSGFRKMAFPSGKVEGCMVQVTCGTTTLNGLWLDDTVYCPRHVICTAEDMLNP
NYEDLLIRKSNHSFLVQAGNVQLRVIGHSMQNCLRLKVDTSNPKTPKYKFVRIQPGQ
TFSVLACYNGSPSGVYQCAMRPNHTIKGSFLNGSCGSVGFNIDYDCVSFCYMHMELP
TGVHAGTDLEGKFYGPVDRQTAQAAGTDTTITLNLAWLYAAVINGDRWFLNRFTTT
LNDFNLVAMKYNIEPLTQDHVDILGPLSAQTGIAVLDMCAALKELLQNGMNGRTILGS
TILEDEFTPFDDVVRQCSGVTFQGKFKKIVKGTHHWMLLTFLTSLILVQSTQWSLFFF
VYENAFLPFTLGIMAIAACAMLLVKHKHAFCLCLLPSLATVAYFNMVYMPASWVMRI
MTWLELADTSLSGYRLKDCVMYASALVLLILMTARTVYDDAARRVWTLNMNITLVYKV
YYGNALDQAISMWALVISVTSNYSGVVTTIMFLARAIIVFVCVEYYPLLFITGNTLQCI
MLVYCFLGYCCCCYFGLFCLLNRYFRLTLGVYDYLVSSTQEFYRMYNSQGLLPPKSSIDA
FKLNIKLLGIGGKPCIKVATVQSKMSDVKCTSVVLLSVLQQLRVESSSKLWAQCVQLH
NDILLAKDTTEAFEKMSVLLSVLLSMQGAVDINRLCEEMLDNRATLQAIASEFSSLPS
YAAAYATAQEAYEQAVANGDSEVVLKKLKKSLNVAKSEFDRDAAMQRKLEKMAHQAMTQ
MYKQARSEDKRAKVTSAMQTMLEFMTLRKLDNDALNNIINNARDGCVPLNIIPLTAAK
LMVVVPDYGTYKNTCDGNTFTYASALWEIQQVVDADSKIIVQLSEINMDNSPNLAWPLI
VTALRANSVAVKLQNNELSPVALRQMSCAAGTTQTACTDDNALAYYNNNSKGGRFVLALL
SDHQDLKWARFPKSDGTGTIYTELEPPCRFVTDTPKGPKVKYLYFIKGLNNLNRMV
GSLAATVRLQAGNATEVPANSTVLSFCAFAVDPAKAYKDYLASGGQPIITNCVKMLCTH
TGTGQAITVTPEANMDQESFGGASCCLYCRCHIDHPNPKGFCDLKGKYVQIPTTCAND
PVGFTLRNTVCTVCGMWKGYGCSCDQLREPLMQSADASTFFKRVCGVSAARLTPCGTG
TSTDVVYRAFDIYNEKVAGFAKFLKTNCCRFQEKDEEGNLLDSYFVVKRHTMSNYQHE

FIGURE 33 (D)

ETIYNLVKDCPAVAVHDFFKFRVDGDMVPHISRQRLTKYTMADLVYALRHFDEGNCDT
LKEILVTYNCCDDDYFNKKDWYDFVENPDILRVYANLGERVRQSLLKTVQFCDAMRDA
GIVGVLTLDNQDLNGNWDYDFGDFVQVAPGCGVPIVDSYYSLLMPILTTLTRALAAESHM
DADLAKPLIKWDLKDYDFTEERLCLFDRYFKYWDQTYHPNCINCLDDRCILHCANFNV
LFSTVFPPTSFGPLVRKIFVDGVFPVSTGYHFRGLGVVHNQDVNLHSSRLSFKELLV
YAADPAMHAASGNLLLDKRTTCFSVAALTNNVAFQTVKPGNFNKDFYDFAVSKGFFKE
GSSVELKHFFFAQDGNAAISDYDYRYNLPTMCDIRQLLFVVEVVDKYFDCYDGGCIN
ANQVI VNNLDKSAGFPFNKGKARLYYDSMSYEDQDALFAYTKRNV IPTITQMNLYA
ISAKNRARTVAGVSI CSTM TNRFHQKLLKSIAATRGATVVIGTSKFYGGWHNMLKTV
YSDVETPHLMGWDYPKCDRAMPNMLRIMASLV LARKHNTCCNL SHRFYRLANECAQVL
SEMVMCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGNKIADKYVR
NLQHRLYECLYRN RDVDHEFVDEFYAYLRKHFSMMILSDDAVVCYNSNYAAQGLVASI
KNFKAVLYYQNNVFMSEAKCWTETDLTKGPHEFCSQHTMLVKQGDDYVYLPYDPDSRI
LGAGCFVDDIVKTDGTLMIERFVSLAIDAYPLTKHPNQEYADV FHLYLQYIRKLHDEL
TGHMLDMYSVMLTNDNTSRYWEPEFYEAMYTPHTVLQAVGACVLCNSQTS LRCGACIR
RPFLCCKCCYDHVISTSHKLVL SVNPHYVCNAPGCDVTDVTQLYLGGMSYYCKSHKPPI
SFPLCANGQVFGLYKNTCVGSDNVTDFNAIATCDWTNAGDYILANTCTERLKLFAAET
LKATEETFKLSYGIATVREVLSDRELHLSWEVGKPRPPLNRNYVFTGYRVTKNSKVQI
GEYTFEKG DYGD AVVYRGTTTYKLN VG DYFVLTSHTVMPLSAPTLPQEHYVRITGLY
PTLNI SDEFSSNVANYQKVGMQKYSTLQGP GTGKSHFAIGLALY YPSARIVYTACSH
AAVDALCEKALKYLPIDKCSRIIPARARVECFDKFKVNSTLEQYVFCTVNALPETTAD
IVVFDEISMATNYDLSVVNARLR AKHYVYIGDPAQLPAPRTLLTKGTLEPEYFNSVCR
LMKTIGPDMFLGTCRRCPAEIVDTV SALVYDNKLKAHKDKSAQCCKMFYKGVITHDVS
SAINRPQIGVVREFLTRNPAWRKAVFISPYN SQNAVASKILGLPTQTVDSSQGSEYDY
VIFTQTTETAHSCNVNRFNVAITRAKIGILCIMS DRDLYDKLQFTSLEIPRRNVATLQ

FIGURE 33 (E)

AENV TGLFKDCSKIITGLHPTQAPTHLSVDIKFKTEGLCVDIPGIPKDMTYRRLISM
GFKMNYQVNGYPNMFITREEAIRHVRAWIGFDVEGCHATRDVGTNLPLQLGFSTGVN
LVAVPTGYVDTENNTFTRVNAKPPPGDQFKHLIPLMYKGLPWNVVR IKIVQMLS DTL
KGLSDRVVFLWAHGFELTSMKYFVKIGPERTCCLCDKRATCFSTSSDTYACWNHSVG
FDYVYNPFMIDVQQWGFTGNLQSNHDQHCQVHGNAHVASCDAIMTRCLAVHECFVKRV
DWSVEYPIIGDELRVNSACRKVQHMVVK SALLADKFPVLHDIGNPKAIKCVPQAEVEW
KFYDAQPCSDKAYKIEELFY SYATHHDKFTDGVCLFWNCNVD RYPANAIVCRFDTRVL
SNLNLPGCDGGS LYVNKHAFHTPAFDKSAFTNLKQLPFFYYSDSPCESHGKQVVS DID
YVPLKSATCITRCNLGGAVCRHHANEYRQYLDAYNMMISAGFSLWIYKQFDTYNLWNT
FTRLQSLENVAYNVVNKGHFDGHAGEAPVSIINNAVYTKVDGIDVEIFENKTTLPVNV
AFELWAKRNIKPVPEIKILNNLGV DIAANTVIWDYKREAPAHVSTIGVCTMTDIAKKP
TESACSSLTVLFDGRVEGQVDLFRNARNGVLITEGSVKGLTPSKGPAQASVNGVTLIG
ESVKTQFNYFKKVDGIIQQLPETYFTQSRDLEDFKPRSQMETDFLELAMDEFIQRYKL
EGYAFEHIVYGDFSHGQLGGLHLMIGLAKRSQDSPLKLEDFIPMDSTVKNYFITDAQT
GSSKCVCSVIDLLLDDFVEI IKSQDLSVISKVVKVTIDYAEISFMLWCKDGHVETFP
KLQASQAWQPGVAMPNLYKMQRMLLEKCDLQNYGENAVIPKGIMMNVAKYTQLCQYLN
TLTLAVPYNMRVIHFGAGSDKGVAPGTAVLRQWLPTGTLLVDSDLNDFVSDADSTLIG
DCATVHTANKWDLIISDMYDPRTKHVTKENDSKEGFFTYLCGF IKQKLALGGSIAVKI
TEHSWNADLYKLMGHFSWWTAFVTNVNASSSEAF LIGANYLGKPKEQIDGYTMHANYI
FWRNTNPIQLSSSYSLFDM SKFPLKLRGTAVMSLKENQINDMIYSLLEKGR LIIRENNR
VVVSSDILVNN

FIGURE 34 (A)

RVCGVSAARLTPCGTGTSTDVVYRAFDIYNEKVAGFAKFLKTNC
CRFQEKDEEGNLLDSYFVVKRHTMSNYQHEETIYNLVKDCPAVAVHDFKFRVDGDMV
PHISRQRLTKYTMADLVYALRHFDEGNCDTLKEILVTYNCCDDDYFNKKDWYDFVENP
DILRVYANLGERVRQSLKTVQFCDAMRDAGIVGVLTLDNQDLNGNWYDFGDFVQVAP
GCGVPIVDSYYSLLMPILTLTRALAAESHMDADLAKPLIKWDLKDYDFTEERLCLFDR
YFKYWDQTYHPNCINCLDDRCILHCANFNVLFSSTVFPPTSFGPLVRKIFVDGVPFVVS
TGYHFRELGVVHNQDVNLHSSRLSFKELLVYAADPAMHAASGNLLLDKRTTCFSVAAL
TNNVAFQTVKPGNFNKFDFYDFAVSKGFFKEGSSVELKHFFFAQDGNAAISDYDYRYRN
LPTMCDIRQLLFVVEVVDKYFDCYDGGCINANQVIVNNLDKSAGFPFNKWGKARLYYD
SMSYEDQDALFAYTKRNVIPITITQMNLYAISAKNRARTVAGVSICSTMTNRQFHQKL
LKSIAATRGA TVVIGTSKFYGGWHNMLKTVYSDVETPHLMGWDYPKCDRAMPNMLRIM
ASLVLARKHNTCCNLSHRFYRLANECAQVLSEMVMCGGSLYVKPGGTSSGDATTAYAN
SVFNICQAVTANVNALLSTDGNKIADKYVRNLQHRLYECLYRNRDVDHEFVDEFYAYL
RKHFSMMILSDDAVVCYNSNYAAQGLVASIKNFKAVLYYQNNVFMSEAKCWTETDLTK
GPHEFCSQHTMLVKQGDDYVYLPYPDPISRILGAGCFVDDIVKTDGTLMIERFVSLAID
AYPLTKHPNQEYADVFLYLQYIRKLHDELTGHMLDMYSVMLTNDNTSRYWEPEFYEA
MYTPHTVLQAVGACVLCNSQTSLRGACIRRPFLCCKCCYDHVISTSHKLVLVSVNPYV
CNAPGCDVTDVTQLYLGGMSYYCKSHKPPISFPLCANGQVFGLYKNTCVGSDNVTDFN
AIATCDWTNAGDYILANTCTERLKLFAAETLKATEETFKLSYGIATVREVLSDRELHL
SWEVGKPRPPLNRNYVFTGYRVTKNSKVQIGEYTFEKGDYGDVAVYRGTTTTYKLVNVD
YFVLTSHTVMPLSAPTLVPQEHYVRITGLYPTLNI SDEFSSNVANYQKVGMQKYSTLQ
GPPGTGKSHFAIGLALYYP SARIVYTACSHA AVDALCEKALKYLPIDKCSRIIPARAR
VECFDKFKVNSTLEQYVFCTVNALPETTADIVVFDEISMATNYDLSVVNARLRKHYV
YIGDPAQLPAPRTLLTKGTLEPEYFNSVCRLMKTIGPDMFLGTCRRCPAEIVDTV SAL
VYDNKLKAHKDKSAQCCKMFYKGVITHDVSSAINRPQIGVVREFLTRNPAWRKAVFIS
PYNSQNAVASKILGLPTQTVDSSQGSEYDYVIFTQTTETAHSCNVNRFNVAITRAKIG

FIGURE 34 (B)

ILCIMS DRDLYDKLQFTSLEIPRRNVATLQAENV TGLFKDCSKIITGLHPTQAPTHLS
VDIKFKTEGLCVDIPGIPKDMTYRRLISM MGFKMNYQVNGYPNMFITREEAIRHVRAW
IGFDVEGCHATRDAVG TNLPLQLGFSTGVNLVAVPTGYVDTENNTEFTRVNAKPPPGD
QFKHLIPLMYKGLPWNVVR IKIVQMLS DTLKGLSDRVV FVLWAHGFELTSMKYFVKIG
PERTCCLCDKRATCFSTSSDTYACWNH SVGFDYVYNPF MIDVQQWGFTGNLQSNHDQH
CQVHGN AHVASCDAIMTRCLAVHECFVKRVDWSVEYPIIGDEL RVNSACR KVQH MVVK
SALLADKFPVLHDIGNPKAIKCVPQAEVEWKFYDAQPCSDKAYKIEELFYSYATHHDK
FTDGVCLFWNCNVDRYPANAIVCRFDTRVLSNLNLPGCDGGS LYV NKHAFHTPAFDKS
AFTNLKQLPFFYYSDSPCESHGKQVVS DIDYVPLKSATCITRCNLGGAVCRHHANEYR
QYLDAYNMMISAGFSLWIYKQFDTYNLWNTFTRLQSL ENVAYNV VNKGHFDGHAGEAP
VSIINNAVYTKVDGIDVEIFENKTTLPVN VAFELWAKRNIKPVPEIKILNNLGVDIAA
NTVIWDYKREAPAHVSTIGVCTMTDIAKKPTESACSSLTVLFDGRVEGQVDLFRNARN
GVLITEGSVKGLTPSKGPAQASVNGVTLIGESVK TQFNYFKKVDGI IQQLPETYFTQS
RDLEDFKPRSQMETDFLELAMDEFIQRYKLEGYAFEHIVYGDFSHGQLGGLHLMIGLA
KRSQDSPLKLED FIPMDSTVKNYFITDAQTGSSKCVCSVIDLLLDDFVEI IKSQDLSV
ISKVVKVTIDYAEISFMLWCKDGHVETFY PKLQASQAWQPGVAMPNLYKMQRMLLEKC
DLQNYGENAVIPKGIMNVAKYTQLCQYLNTLT LAVPYNMRVIHFGAGSDKGVAPGTA
VLRQWLPTGTLLVDS DLNDFVSDADSTLIGDCATVHTANKWDLI ISDMYDPRTKHVTK
ENDSKEGFFTYLCGFIKQKLALGGSIAVKITEHSWNADLYKLMGHFSWWTAFVTNVNA
SSSEAF LIGANYLGKPKEQIDGYTMHANYIFWRNTNPIQLSSYS LFDMSKFPLKLRGT
AVMSLKENQINDMIYSLLEKGR LIIRENNRVVVSSDILVNN

FIGURE 35 (A)

MESLVLGVNEKTHVQLSLPVLQVRDVLVRGFGDSVEEALSEARE
HLKNGTCGLVELEKGVLPQLEQPYVFIKRSDALSTNHGHKVVELVAEMDGIQYGRSGI
TLGVLVPHVGETPIAYRNVLLRKNGNKGAGGHSYGIDLKSYDLGDELGTDPIEDYEQN
WNTKHGSGALRELTRELNGGAVTRYVDNNFCGPDGYPLDCIKDFLARAGKSMCTLSEQ
LDYIESKRGVYCCRDHEHEIAWFTERSDKSYEHQTPFEIKSAKKFDTFKGECPKFVFP
LNSKVKVIQPRVEKKKTEGFMGRIRSVYPVASPQECNNMHLSTLMKCNHCDEVSWQTC
DFLKATCEHCGTENLVIIEGPTTCGYLPTNAVVKMPCPACQDPEIGPEHSVADYHNHSN
IETRLRKGGRTRCFGGCVFAYVGCYNKRAYWVPRASADIGSGHTGITGDNVETLNEDL
LEILSRERNINIVGDFHLNEEVAIILASFSASTSAFIDTIKSLDYKSFKTIVESCGN
YKVTKGKPVKGAWNIGQORSVLTPLCGFPSQAAGVIRSIFARTLDAANHSIPDLQRAA
VTILDGISEQSLRLVDAMVYTSDLLTNSVIIMAYVTGGLVQQTSQWLSNLLGTTVEKL
RPIFEWIEAKLSAGVEFLKDAWEILKFLITGVFDIVKGQIQVASDNIKDCVKCFIDVV
NKALEMCIDQVTIAGAKLRSLNLGEVFIAQSKGLYRQCIRGKEQLQLLMPLKAPKEVT
FLEGDSHDTVLTSEEVLKNGELEALETPVDSFTNGAIVGTPVCVNGLMLEIKDKEQ
YCALSPGLLATNNVFRCLKGGAPIKGVTFGEDTVWEVQGYKNVRITFELDERVDKVLNE
KCSVYTVESGTEVTEFACVVAEAVVKTLQPVSDLLTNMGIDLDEWSVATFYLFDDAGE
ENFSSRMYSFYPPDEEEEDDAECEEEEEIDETCEHEYGTEDDYQGLPLEFGASAETVR
VEEEEEEDWLDDTTEQSEIEPEPEPTPEEPVNQFTGYLKLTDNVAIKCVDIVKEAQSA
NPMVIVNAANIHLKHGGGVAGALNKATNGAMQKESDDYIKLNGPLTVGGSCLLSGHNL
AKKCLHVVGPNLNAGEDIQLLKAAYENFNSQDILLAPLLSAGIFGAKPLQSLQVCVQT
VRTQVYIAVNDKALYEQVMDYLDNLKPRVEAPKQEEPPNTEDSKTEEKSVVQKPVDV
KPKIKACIDEVTTTLEETKFLTNKLLLFADINGKLYHDSQNMLRGEDMSFLEKDAPYM
VGDVITSGDITCVVIPSCKAGGTTEMLSRALKKVPVDEYITTYPGQGCAGYTL EEAKT
ALKKCKSAFYVLPSEAPNAKEEILGTVSWNLREMLAHAEETRKLMPICMDVRAIMATI
QRKYKGIKIQEGIVDYGVRFFFFYTSKEPVASIIITKLNSLNEPLVTMPIGYVTHGFNLE
EAARCMRSLKAPAVSVSSPDAVTTYNGYLTSSSKTSEEHFVETVSLAGSYRDWSYSG

FIGURE 35 (B)

QRTELGVEFLKRGDKIVYHTLESPVEFHLDGEVLSLDKLSLLSLREVKTIKVFTTVD
NTNLHTQLVDMSTMITYGQQFGPTYLDGADVTKIKPHVNHEGKTFFVLPSDDTLRSEAFE
YYHTLDESFLGRYMSALNHTKKWKFPQVGGLTSIKWADNNCYLSSVLLALQQLEVKN
APALQEAYYRARAGDAANFCALILAYSNKTVGELGDVRETMTHTLLQHANLESAKRVLN
VVCKHCGQKTTTTLTGVEAVMYMGTLSYDNLKTGVSI PCVCGRDATQYLVQQESSFVMM
SAPPAEYKLQQGTFLCANEYTGNYQCGHYTHITAKETLYRIDGAHLTKMSEYKGPVTD
VFKYKETSYYTTTIKPVSYKLDGVITYTEIEPKLDGYKKDNAYYTEQPIDLVPQTQPLPNA
SFDNFKLTCSNTKFADDLNQMTGFTKPASRELSVTFFPDLNGDVVAIDYRHYSASFKK
GAKLLHKPIVWHINQATTKTTFKPNTWCLRCLWSTKPVDTSSNSFEVLAVEDTQGMNLT
ACESQQPTSEEVENPTIQKEVIECDVKTTEVVG NVILKPSDEGVKVTQELGHEDLMA
AYVENTSITIKKPNELSLALGLKTIATHGIAAINSVPWSKILAYVKPFLGQAAITTSN
CAKRLAQRVFNNYMPYVFTLLFQLCTFTKSTNSRIRASLPTTIAKNSVKSVAKLCLDA
GINYVKSPKFSKLFTIAMWLLLLSICLGLSICVTAAFGVLLSNFGAPSYCNGVRELYL
NSSNVTTMDFCEGSFPCSICLSGLDSDLSYPALETIQVTISSYKLDLTILGLAAEWVL
AYMLFTKFFYLLGLSAIMQVFFGYFASHFISNSWLMWFIISIVQMAPVSAMVRMYIFF
ASFYYIWKSYVHIMDGCTSSTCMMCYKRN RATRVECTTIVNGMKRSFYVYANGGRGFC
KTHNWNCLNCDTFCTGSTFISDEVARDLSLQFKRPINPTDQSSYIVDSVAVKNGALHL
YFDKAGQKTYERHPLSHFVNLDNLRANNTKGS LPINVIVFDGKSKCDESASKSASVYY
SQLMCQPILLLDQALVSDVG DSTEVSVKMF DAYVDTFSATFSVPMEK LKALVATAHSE
LAKGVALDGVLSTFVSAARQGVVD TDVDTKD VIECLKLSHHS DLEVTDGSCNNFMLTY
NKVENMTPRDLGACIDCNARHINAQVAKSHNVSLIWNVKDYMSLSEQLRKQIRSAACK
NNIPFRLTCATTRQVVNVITTKISLKG GKIIVSTCFKLMLKATLLCVLAALVCYIVMPV
HTLSIH DGYTNEIIGYKAIQDGVTRDIISTDDCFANKHAGFDAWFSQRGGSYKNDKSC
PVVAAIITREIGFIVPGLPGTVLRAINGDFLHFLPRVFSAVGNICYTPSKLIEYSDFA
TSACVLAAECTIFKDAMGKVPYCYDTNLLEGSISYSELRPDTRYVLM DGSIIQFPNT
YLEGSVRVVTTFDAEYCRHGTCERSEVGICLSTSGRWVLNNEHYRALSGVFCGV DAMN

FIGURE 35 (C)

LIANIFTPLVQPVGALDVSASVVAGGIIAILVTCAAYYFMKFRRAFGEYNHVVAANAL
LFLMSFTILCLAPAYSFLPGVYSVFYLYLTFYFTNDVSFLAHLQWFAMFSPIVPFWIT
AIYVFCISLKHCHWFFNNYLKRKRVMFNGVTFSTFEEAALCTFLLNKEMYLKLRSETLL
PLTQYNRYLALYNKYKYFSGALDTSYREAACCHLAKALNDFSNSGADVLYQPPQTSI
TSAVLQSGFRKMAFPSPGKVEGCMVQVTCGTTTLNGLWLDDTVYCPRHVIC TAEDMLNP
NYEDLLIRKSNHSFLVQAGNVQLRVIGHSMQNCLLRKVDTSNPKTPKYKFVRIQPGQ
TFSVLACYNGSPSGVYQCAMRPNHTIKGSFLNGSCGSGVGFNIDYDCVSFCYMHMELP
TGVHAGTDLEGKFYGPVDRQTAQAAGTDTTITLNLVLAWLAAVINGDRWFLNRFTTT
LNDFNLVAMKYNIEPLTQDHVDILGPLSAQTGIAVLDMCAALKELLQNGMNGRTILGS
TILEDEFTPFDDVVRQCSGVTFQGKFKKIVKGTHHWMLLTFLTSLLIIVQSTQWSLFFF
VYENAFLPFTLGIMAIAACAMLLVKHKHAFCLCLLPSLATVAYFNMVYMPASWVMRI
MTWLELADTSLSGYRLKDCVMYASALVLLILMTARTVYDDAARRVWTLMNVITLVYKV
YYGNALDQAISMWALVISVTSNYSGVVTTIMFLARAI VFVCVEYYPLLFITGNTLQCI
MLVYCFGLGYCCCCYFGLFCLLNRYFRLTLGVYDYLSTQEFMYMNSQGLLPPKSSIDA
FKLNIKLLGIGGKPCIKVATVQSKMSDVKCTSVVLLSVLQQLRVESSSKLWAQCVQLH
NDILLAKDTTEAFEKMSVLLSVLLSMQGAVDINRLCEEMLDNRATLQAIASEFSSLPS
YAAAYATAQEAYEQAVANGDSEVVLKKLKKSLNVAKSEFDRDAAMQRKLEKMAEQAMTQ
MYKQARSEDKRAKVTSAMQTMFTMLRKLNDALNNIINNARDGCVPLNI I PLTTAAK
LMVVVPDYGTYNKTCDGNTFTYASALWEIQQVVDADSKI VQLSEINMDNSPNLAWPLI
VTALRANSVAVKLQNNELSPVALRQMSCAAGTTQTACTDDNALAYNNNSKGGRFVLALL
SDHQDLKWARFPKSDGTGTIYTELEPPCRFVTDTPKGPKVKYLYFIKGLNNLNRMVL
GSLAATVRLQAGNATEVPANSTVLSFCAFAVDPAKAYKDYLASGGQPITNCVKMLCTH
TGTGQAITVTPEANMDQESFGGASCLYCRCHIDHPNPKGFCDLKGKYVQIPTTCAND
PVGFTLRNTVCTVCGMWKGYGCSCDQLREPLMQSADASTFLNRVCGVSAARLTPCGTG
TSTDVVYRAFDIYNEKVAGFAKFLKTNCCRFQEKDEEGNLLDSYFVVKRHTMSNYQHE
ETIYNLVKDCPAVAHVHDFKFRVDGDMVPHISRQRLTKYTMADLVYALRHFDEGNCDT

FIGURE 35 (D)

LKEILVTYNCCDDDDYFNKKDWYDFVENPDILRVYANLGERVRQSLKTVQFCDAMRDA
GIVGVLTLDNQDLNGNWDYDFGDFVQVAPGCGVPIVDSYYSLLMPILTLTRALAAESHM
DADLAKPLIKWDLKDYDFTEERLCLFDRYFKYWDQTYHPNCINCLDDRCILHCANFNV
LFSTVFPPTSFGPLVRKIFVDGVPPFVVSTGYHFRELGVVHNQDVNLHSSRLSFKELLV
YAADPAMHAASGNLLLDKRTTCFSVAALTNNVAFQTVKPGNFNKDFYDFAVSKGFFKE
GSSVELKHFFFAQDGNAAISDYDYRYNLPTMCDIRQLLFVVEVVDKYFDCYDGGCIN
ANQVIVNNLDKSAGFPFNKWGKARLYYDSMSYEDQDALFAYTKRNVIPITITQMNLYA
ISAKNRARTVAGVSICSTMTNRQFHQKLLKSIAATRGATVVIGTSKFYGGWHNMLKTV
YSDVETPHLMGWDYPKCDRAMPNMLRIMASLVLARKHNTCCNLSHRFYRLANECAQVL
SEMVMCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGNKIADKYVR
NLQHRLYECLYRNRDVDHEFVDEFYAYLRKHFSMMILSDDAVVCYNSNYAAQGLVASI
KNFKAVLYYQNNVFMSEAKCWTETDLTKGPHEFCSQHTMLVKQGDDYVYLPYPDPRI
LGAGCFVDDIVKTDGTLMIERFVSLAIDAYPLTKHPNQEYADVHLYLQYIRKLHDEL
TGHMLDMYSVMLTNDNTSRYWEPEFYEAMYTPHTVLQAVGACVLCNSQTSLRGACIR
RPFLCCKCCYDHVISTSHKLVLVSVNPYVCNAPGCDVTDVTQLYLGGMSYYCKSHKPPI
SFPLCANGQVFGLYKNTCVGSDNVTFNAIATCDWTNAGDYILANTCTERLKLFAAET
LKATEETFKLSYGIATVREVLSDRELHLSWEVGKPRPPLNRNYVFTGYRVTKNSKVQI
GEYTFEKGDYGDVAVYRGTTTTYKLVNGDYFVLTSHTVMPLSAPTLVPQEHYVRITGLY
PTLNI SDEFSSNVANYQKVGMQKYSTLQGPPGTGKSHFAIGLALYYP SARIVYTACSH
AAVDALCEKALKYLPIDKCSRIIPARARVECFDKFKVNSTLEQYVFCTVNALPETTAD
IVVFDEISMATNYDLSVVNARLRKHYVYIGDPAQLPAPRTLLTKGTLEPEYFNSVCR
LMKTIGPDMFLGTCRRCPAEIVDTV SALVYDNKLKAHKEKSAQCFKMFYKGVITHDVS
SAINRPQIGVVREFLTRNPAWRKAVFISPYNSQNAVASKILGLPTQTV DSSQGSEYDY
VIFTQTTETAHSCNVNRFNVAITRAKIGILCIMS DRDLYDKLQFTSLEIPRRNVATLQ
AENV TGLFKDCSKIITGLHPTQAPTHLSVDIKFKTEGLCVDIPGIPKDMTYRRLISM
GFKMNYQVNGYPNMFITREEAIRHVRAWIGFDVEGCHATRDAVG TNLPLQLGFSTGVN

FIGURE 35 (E)

LVAVPTGYVDTENNTEFTRVNAKPPPGDQFKHLIPLMYKGLPWNVVRICKIVQMLSDTL
KGLSDRVVFLWAHGFELTSMKYFVKIGPERTCCLCDKRATCFSTSSSDTYACWNHSVG
FDYVYNPFMIDVQQWGFTGNLQSNHDQHCQVHGNAHVASCDAIMTRCLAVHECFVKRV
DWSVEYPIIGDELRVNSACRKVQHMVVKSAALLADKFPVLHDIGNPKAIKCVPQAEVEW
KFYDAQPCSDKAYKIEELFYSYATHHDKFTDGVCLFWNCNVDRYPANAIVCRFDTRVL
SNLNLPGCDGGSLYVNKHAFHTPAFDKSAFTNLKQLPFFYYSDSPCESHGKQVVSID
YVPLKSATCITRCNLGGAVCRHHANEYRQYLDAYNMMISAGFSLWIYKQFDTYNLWNT
FTRLQSLENVAYNVVNKGHFDGHAGEAPVSIINNAVYTKVDGIDVEIFENKTTLPVNV
AFELWAKRNIKPVPEIKILNNLGVDAANTVIWDYKREAPAHVSTIGVCTMTDIAKKP
TESACSSLTVLFDGRVEGQVDLFRNARNGVLITEGSVKGLTPSKGPAQASVNGVTLIG
ESVKTQFNYFKKVDGIIQQLPETYFTQSRDLEDFKPRSQMETDFLELAMDEFIQRYKL
EGYAFEHIVYGDFSHGQLGGLHLMIGLAKRSQDSPLKLEDFIPMDSTVKNYFITDAQT
GSSKCVCSVIDLLDDFVEIISKQDLSVISKVVKVTIDYAEISFMLWCKDGHVETFYP
KLQASQAWQPGVAMPNLYKMQRMLLEKCDLQNYGENAVIPKGIMMNVAKYTQLCQYLN
TLTLAVPYNMRVIHFGAGSDKGVAPGTAVLRQWLPTGTLLVDSDLNDFVSDADSTLIG
DCATVHTANKWDLIISDMYDPRTKHVTKENDSKEGFFTYLCGFIKQKLALGGSIAVKI
TEHSWNADLYKLMGHFSWWTAFVTNVNASSSEAFBIGANYLGKPKEQIDGYTMHANYI
FWRNTNPIQLSSYSLFDMSEKFLKLRGTAVMSLKENQINDMIYSLLEKGRLLIRENNR
VVVSSDILVNN

FIGURE 36

KSFKTIVESC GNYKVTKGKPVKGAWNIGQQRSVLTPLCGFPSQA
AGVIRSIFARTLDAANHSIPDLQRAAVTILDGISEQSLRLVDAMVYTSDLLTNSVIIM
AYVTGGLVQQTSQWLSNLLGTTVEKLRPIFEWIEAKLSAGVEFLKDAWEILKFLITGV
FDIVKGQIQVASDNIKDCVKCFIDVVNKALEMCIDQVTIAGAKLRSLNLGEVFIAQSK
GLYRQCIRGKEQLQLLMPLKAPKEVTFLEGDSHDTVLTSEEVVLKNGELEALETPVDS
FTNGAIVGTPVCVNGMLMLEIKDKEQYCALSPGLLATNNVFRCLKGGAPIKGVTFGEDT
VWEVQGYKNVRITFELDERVDKVLNEKCSVYTVESGTEVTEFACVVAEAVVKTLPVVS
DLLTNMGIDLDEWSVATFYLFDDAGEENFSSRMYSFYPPDEEEEDDAECEEEEEIDET
CEHEYGTEDDYQGLPLEFGASAETVRVEEEEEEDWLDDTTEQSEIEPEPEPTPEEPVN
QFTGYLKLTDNVAIKCVDTVKEAQSANPMVIVNAANIHLKHGGGVAGALNKATNGAMQ
KESDDYIKLNGPLTVGGSCLLSGHNLAKKCLHVVGPNLNAGEDIQLLKAAYENFNSQD
ILLAPLLSAGIFGAKPLQSLQVCVQTVRTQVYIAVNDKALYEQVVM DYLDNLKPRVEA
PKQEEPNTEDSKTEEKSVVQKPVDVKPKIKACIDEVTTTLEETKFLTNKLLLFADIN
GKLYHDSQNMLRGEDMSFLEEDAPYMGVDVITSGDITCVVIPSKKAGGTTEMLSRALK
KVPVDEYITTPGQGCAGYTL EEAKTALKKCKSAFYVLPSEAPNAKEEILGTVSWNLR
EMLAHAE EARKLMPI CMDVRAIMATIQRKYKGVKIQEGIVDYGVRFFFYTSKEPVASI
ITKLNSLNEPLVTMPIGYVTHGFNLEEAARCMRSLKAPAVSVSSPDAVTTYNGYLTS
SSKTSEEHFVETVSLAGSYRDWSYSGQRTLGVEFLKRGDKIVYHTLES PVEFHLDGE
VLSLDKLSLLSLREVKTIKVFTTV DNTNLHTQLVDM SMTYGQQFGPTYLDGADVTKI
KPHVNHEGKTFFVLPSDDTLRSEAF EYYHTLDESFLGRYMSALNHTKKWKFPQVGGLT
SIKWADNNCYLSSVLLALQQLEVKF NAPALQE

FIGURE 37.

KSFKTIVESC GNYKVTKGKPVKGAWNIGQQRSVLTPLCGFPSQA
AGVIRSI FARTLDAANHSIPDLQRAAVTILDGISEQSLRLVDAMVYTSDLLTNSVIIM
AYVTGGLVQQTSQWLSNLLGTTVEKLRPIFEWIEAKLSAGVEFLKDAWEILKFLITGV
FDIVKGQIQVASDNIKDCVKCFIDVVNKALEMCIDQVTIAGAKLRSLNLGEVFIAQSK
GLYRQCIRGKEQLQLLMPLKAPKEVTFLEGDSHDTVLTSEEVVLKNGELEALETPVDS
FTNGAIVGTPVCVNGLMLLEIKDKEQYCALSPGLLATNNVRLKGGAPIKGVTFGEDT
VWEVQGYKNVRITFELDERVDKVLNEKCSVYTVESGTEVTEFACVVAEAVVKTLQPV
DLLTNMGIDLDEWSVATFYLFDDAGEENFSSRMYSFYPPDEEEEDDAECEEEEEIDET
CEHEYGTEDDYQGLPLEFGASAETVRVEEEEEEDWLDDTTEQSEIEPEPEPTPEEPVN
QFTGYLKLTDNVAIKCVDTVKEAQSANPMVIVNAANIHLKHGGGVAGALNKATNGAMQ
KESDDYIKLNGPLTVGGSCLLSGHNLAKKCLHVVGPNLNAGEDIQLLKAAYENFNSQD
ILLAPLLSAGIFGAKPLQSLQVCVQTVRTQVYIAVNDKALYEQVVM DYLDNLKPRVEA
PKQEEPPNTEDSKTEEKSVVQKPVDVKPKIKACIDEVTTTLEETKFLTNKLLLFADIN
GKLYHDSQNMLRGEDMSFLEEDAPYMGVDVITSGDITCVVIPS KKAGGTTEMLSRALK
KVPVDEYITTPGQGCAGYTL EEAKTALKKCKSAFYVLPSEAPNAKEEILGTVSWNLR
EMLAHAE EARKLMPICMDVRAIMATIQRKYKGVKIQEGIVDYGVRFFFYTSKEPVASI
ITKLNSLNEPLVTMPIGYVTHGFNLEEAARCMRSLKAPAVVS VSSPDAVTTYNGYLTS
SSKTSEEHFVETVSLAGSYRDWSYSGQRTELGV EFLKRGDKIVYHTLESPVEFHLDGE
VLSLDKLSLLSLREVKTIKVFTTVDNTNLHTQLVDMSMTYGQQFGPTYLDGADVTKI
KPHVNHEGKTFFVLPSDDTLRSEAF EYYHTLDESFLGRYMSALNHTKKWKFPQVGGLT
SIKWADNNCYLSSVLLALQQLEVKFNAPALQE

FIGURE 38

MESLVLGVNEKTHVQLSLPVLQVRDVLVRGFGDSVEEALSEARE
HLKNGTCGLVELEKGVLPQLEQPYVFIKRSDALSTNHGHKVVELVAEMDGIQYGRSGI
TLGVLVPHVGETPIAYRNVLLRKNGNKGAGGHSYGIDLKSYDLGDELGTDPIEDYEQN
WNTKHGSGALRELTRELNGGVVTRYVDNNFCGPDGYPLDCIKDFLARAGKSMCTLSEQ
LDYIESKRGVYCCRDHEHEIAWFTERS SDKSCEHQTPFEIKSAKKFDTFKGECPKFVFP
LNSKVKVIQPRVEKKKTEGFMGRIRSVYPVASPQECNNMHLSTLMKCNHCDEVSWQTC
DFLKATCEHCGTENLVIEGPTTCGYLPTNAVVKMPCPACQDPEIGPEHSVADYHNHSN
IETRLRKGGRTRCFGGCVFAYVGCYNKRAYWVPRASADIGSGHTGITGDNVETLNEDL
LEILSRERNINIVGDFHLNEEVAILASFSAFIDTIKSLDYKSFKTIVESC

FIGURE 39

MESLVLGVNEKTHVQLSLPVLQVRDVLVRGFGDSVEEALSEARE
HLKNGTCGLVELEKGVLPQLEQPYVFIKRSDALSTNHGHKVVELVAEMDGIQYGRSGI
TLGVLVPHVGETPIAYRNVLLRKNGNKGAGGHSYGIDLKSYDLGDELGTDPIEDYEQN
WNTKHGSGALRELTRELNGGVVTRYVDNNFCGPDGYPLDCIKDFLARAGKSMCTLSEQ
LDYIESKRGVYCCRDHEHEIAWFTERS SDKSCEHQTPFEIKSAKKFDTFKGEC PKFVFP
LNSKV KVIQPRVEKKKTEGFMGRIRSVYPVASPQECNNMHLSTLMKCNHCDEVSWQTC
DFLKATCEHCGTENLVIEGPTTCGYLPTNAVVKMPCPACQDPEIGPEHSVADYHNHSN
IETRLRKGGRTRCFGGCVFAYVGCYNKRAYWVPRASADIGSGHTGITGDNVETLNEDL
LEILSRERNINIVGDFHLNEEVAILASFSASTSAFIDTIKSLDYKSFKTIVESC

FIGURE 40

MSDNGPQSNQRSAPRITFGGPTDSTDNNQNGGRNGARPKQRRPQ
GLPNNTASWFTALTQHGKEELRFPRGQGVPIINTNSGPDDQIGYYRRATRRVRGGDGKM
KELSPRWYFYYLGTGPEASLPYGANKEGIVWVATEGALNTPKDHIGTRNPNNNAATVL
QLPQGTTLPKGFYAEGSRGGSQASSRSSSRSGNSRNSTPGSSRGNSPARMASGGGET
ALALLLLDRLNQLESKVSGKGQQQQGQTVTKKSAAEASKKPRQKRTATKQYNVTQAFG
RRGPEQTQGNFGDQDLIRQGTDYKHWPQIAQFAPSASAFFGMSRIGMEVTPSGTWLTY
HGAIKLDDKDPQFKDNVILLNKHIDAYKTFPPTPEPKDKKKKTDEAQPLPQRQKKQPT
VTLLPAADMDDFSRQLQNSMSGASADSTQA

FIGURE 41

MFIFLLFLTTLTSGSDLDRCTTFDDVQAPNYTQHTSSMRGVYYPD
EIFRSDTLYLTQDLFLPFYSNVTGFHTINHTFDNPVIPFKDGIYFAATEKSNVVRGWV
FGSTMNKSQSVIIINNSTNVVIRACNFELCDNPFFAVSKPMGTQHTMIFDNAFNCT
FEYISDAFSLDVSEKSGNFKHLREFVFKNKDGLYVYKGYQPIDVVRDLPSGFNTLKP
IFKLPLGINITNFRAILTAFSPAQDTWGTSAAAAYFVGYLKPTTFMLKYDENGITITDAV
DCSQNPLAELKCSVKSFEIDKGIYQTSNFRVVPSPGDVVRFPNITNLCPFGEVFNATKF
PSVYAWERKKISNCVADYSVLYNSTFFSTFKCYGVSATKLNLDLCSNVYADSFVVKGD
DVRQIAPGQTGVIADYNYKLPDDEFMGCVLAWNTRNIDATSTGNYNKYRYLRHGKLRP
FERDISNVPFSPDGKPCPPALNCYWPLNDYGfYTTTGIGYQPYRVVLSFELLNAPA
TVCGPKLSTDLIKNQCVNFNFNGLTGTGVLTTPSSKRFQPFQQFGRDVSDFTDSVRDPK
TSEILDISPCSFGGVSVITPGTNASSEVAVLYQDVNCTDVSTAIHADQLTPAWRIYST
GNNVFQTQAGCLIGAHEVDTSYECDIPIGAGICASYHTVSLLRSTSQKSIVAYTMSLG
ADSSIAYSNNITIAIPTNFSISITTEVMPVSMAKTSVDCNMYICGDSTECANLLLQYGS
FCTQLNRALSGIAAEQDRNTREVFAQVKQMYKTPTLKYFGGFNFSQILPDPLKPTKRS
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